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Application of Web 2.0 Technology in an Exploratory Scenario Planning Approach for the Re-visioning of Abuja City

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Abstract

Scenarios and visioning are archetypical products of futures studies necessary for creating and re-creating the future to avoid surprises that come with unpreparedness. They contain stories of multiple futures, from the expected to the wildcard, in forms that are methodically comprehensible and creatively engaging. The paper aims at a systematic revisioning and envisioning of Abuja city vision using scenario planning approach and Web 2.0 technology such as Facebook, blog, email and WhatsApp to illustrate a step-by-step process of obtaining the most desirable vision for Abuja. The methodology adopted in this study is qualitative approach that involves application of online tools to create future scenarios in an interactive manner for achieving prototype vision for Abuja. Participants were recruited from within and outside Nigeria using open and chain referrals. A total of 400 participants were recruited out which 152 participated at the scooping (preliminary) stage. From the results, at the scooping stage, 102 persons were of the opinion that the current Abuja vision is not desirable, while 50 believe it is desirable. main barriers and future challenges to the planning of Abuja city. At the scenario stage 291 participated. Eighty-seven (87) scenarios were created and after several iterations, it was downscaled to nine (9) and finally to four (4) from which the most preferred prototyped vision for Abuja was selected as ''A socio-economically dynamic city''. It is recommended that urban actors should adopt scenario approach involving web 2.0 technology in developing sustainable city vision where citizen participation and opinion serve as a guide to those in Authority in making choices amongst significant number of planning visions.

Keywords: scenario planning, visioning, participation, web 2.0 technology

Introduction

Many developed and developing countries have undertaken national visioning exercises that enabled the control of their destinies as well as cope with the variety of changes and uncertainties of the future. These exercises whether in Asia, North America, Latin America, Europe or Africa are meant to assist the nation in building an inspiring and a truly shared national vision of the future (Adesida and Oteh, 1998). The results of the visioning exercises are meant to provide a guiding framework for national development management and to guide the actions of the private sector and civil society. The exercises are meant to provide a leeway for the nation and a rallying mechanism for national development. Furthermore, national visioning projects are a learning process for both the `governed' and the `governors' particularly the vision of a new city.

According to Newman and Jennings, (2012) the path to sustainability starts with the development of long-term visions. Vision is about dreams, imagination, passion, and creativity. Long term visions can inspire action and guide decision making. Visions as always forms the bases of good politics and every city need to create their own vision within the context and peculiarity of their location within global sustainability aspiration, equity and peace. According to Dierkes et. al. (1996) vision is the vehicle for very wide normative choices, interaction, communication, explanation and discussion among technologists and non-experts. Visions also tend to reproduce themselves by facilitating and guiding development. Thus, Visions are agents of change, shaped by actors and also found imbedded in existing structures, carried out by the actors in the same structures. For vision to be

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developed for a city it has to provide the bases for goal setting for action plans as well as the vision statement being in tune with community constrains alongside community short and long term action priority because sustainability is an evolving process and community vision needs to be revised regularly to reflect changes (Hall, 2014).

There is different type of vision such as desirable (positive) visions and undesirable (negative) vision that could either be avoided, contested or can gain acceptance. Two key element of vision concept by Dierkes et al. (1996) are; shared vision makes it possible to unite people from different backgrounds, people from different field that can develop the technology, two; Vision guides the behavior and actions of the people who share or support the vision in a decentralized bottom-up interactive format amongst different actors.

In ensuring that the people get involved early enough in the visioning process and at a very high degree so much so that the vision would not die but succeeds, participation can be achieved through avenues such as media presentation, catchy open-door events, organising children's visioning activities, using focus groups and task force group. These processes bring communities together and generate shared sense of purpose and direction which can be turned into action plans with goals on how to achieve the vision. Community visioning should be able to answer basic key questions like; 1) Where are we now? 2) Where are we going? 3) Where do we want to be? This helps to think ahead and evaluate what matters to the community in question 4) how do we get there? An effective visioning process comprises of;

- the involvement of major institutions, government and private groups
- Key opinion leaders are also part of the process
- clear goals and objectives are formed
- adequate resources are budgeted for
- It engages people all the way through (Newman and Jennings, 2012)

One of the key ideas behind the Abuja vision was the need to create nationalism in Nigeria which was acknowledged as a significant problem from the beginning. In general, knowing how difficult it was to create this sense of patriotism, administrators decided to use inorganic policies of relocation in order to catalyse organic emotional ties because at the time of conceptualising the Abuja vision, it was so challenging to create nationalism through a mere paper strategy. The challenge of unity and patriotism was re-ignited by the Biafra war such that nationalism had to be evolved in order for the country to recreate itself.

In the process of implementing these initiatives, different categories of a top-down approach were used in implementing the vision of the capital city. The approach to its city structure was therefore strictly modernist rather than an integrative. It therefore failed to encompass the concept of multi-objective city planning in a manner responsive/sensitive to economic, social, environmental or cultural dynamic/change. Although Abuja was created with a vision to unify Nigerians and thus mitigate urban problems, such as those experienced in Lagos, the vision areas did not sensitively factor in the cultural dynamics in Nigeria (Aguda, 1975). This disregard contributed to sustainable-city challenges similar to those encountered in Lagos (Osuocha and Njoku, 2012; Bosselmann, 2013;

Adeponle, 2013; Elleh 2014). Jinadu (2004) further highlights that the city has been recreating the errors it was meant to correct, including the congestion, distortion, over-population, pollution and all manner of chaos and pandemonium, amongst others that characterised the city of Lagos.

Even when the process started to consider the inclusion of the residents in decision-making, it fell short of the ideal approach to inclusive participation, as recommended by the United Nations in 1999. Even long after 'Our Common Future' (WECD. 1987: 63-65) concluded in its outline of sustainable development that the realisation of any vision also required a political system that secures effective citizen participation in decision-making and an administrative system that is flexible and has the capacity for self-correction, there is still a lack of political commitment or willingness on the part of the Abuja government to share decision-making and residents of the city.

In the general governance of Nigeria, there has been no defined practice of participation or systematic knowledge of what participation is and what participatory planning entails. As a result, most government decision makers seem to think that merely informing the public means they are applying participatory approaches. This could be attributed to the fact that soon after the country gained independence in 1960; it fell into military rule for over 30 years such that within that period participation would have been viewed as entailing political risk of question the central authority.

Visions and envisioning have frequently been used as ways to approach the desired future and can be described as either an important simple step or a complex process in any sustainable city plan process as they begin with "where we want to be" as the initial point (Meadows, 2012). Developing a vision and a plan for a city is the essential first step for pursuing new pathways towards transformation. Visions usually are mental dreams, thoughts, passion, and inspiration that are shaped and guided in the direction of the desired future change and inspired by the different actions of diverse actors (Grunwald, 2012). The purpose of the visioning process is to create a fertile environment for developing new ideas that work (Quist et al.,2001a). This explains why after developing the national vision, the next step is to take a serious look at the vision, dissect it and formulate strategies on how the vision can be realized. As the popular saying goes, `a vision without action is merely a dream and action without vision merely passes the time.' Without formulating strategies and designing corresponding policy and institutional reform programs, any vision developed is useless. Appropriate mechanisms to refine the vision on an ongoing basis, as well as monitor implementation must also be put in place.

This paper proposes the use of scenario planning process to create prototype visions through a detailed analysis account of the creation of a prototyped vision for Abuja through participation and scenario and vision creation process using Web 2.0 online technology.

Literature Review
Scenario planning evolved from Herman Kahn's methods to "think the unthinkable" in the 1950s (Kahn & Wiener, 1967). The scenario approach recognizes the inherent weaknesses in forecasts, and single-outcome methods that

essentially aim to predict the future. Instead, scenario planning makes use of multiple scenarios or stories of different futures to underscore the fact that the future is unpredictable, unstable, and inherently filled with uncertainty. Reframed as tools for learning, scenarios are intended to "shift the thinking inside the organization" and help managers and decision makers re-perceive the organizational situation and consider numerous ways in which the future might unfold (Wack, 1985a, p. 34).

Scenario planning and analysis has progressed especially in the last 50-years and in the present day there are huge range of scenarios that have become known and used (Ratcliffe, 2002b). Although there are numerous variations on how to conduct a scenario planning exercise, all are variations on a theme. That is, all have certain elements in common. Scenario Planning is one of the most conventional and influential skill in strategic thinking and procedure with which different initiatives are used in creating several features projected that might happen in the future (Ratcliffe, 2002a; Amer et al., 2013). Scenarios have long been used by policy makers, entrepreneurs and military predictors as a means of countering indecision in decision-making process. Scenario is designed to establish opinions about possible futures by so doing reduces surprises thus widens the view about diverse prospects (Mietzner and Reger, 2005). Ratcliffe (2002b) emphasises on the uniqueness of scenarios as consisting: alternative image prompted by present developments, engages both qualitative and quantitative data, allows an evaluation of irregularity, decision makers are able to question their most important beliefs, creates learning relationship pulled together by a general language and sometimes inconsistent circumstances or options. Scenarios are descriptions of possible futures that reflect different perspectives on the past, the present and the future (Van Notten et al., 2003). The design of Scenario is to set up thoughts about likely futures which can reduce surprises and widen the extent of opinion about diverse possibilities (Mietzner and Reger, 2005). There are many different types of scenarios and ways of classifying them. Scenarios can be exploratory or normative.

Schwartz, (1996) defines the main purpose of scenarios as a tool for ordering one's perceptions about alternative future environments in which today's decisions might be played out. In practice, scenarios looks a lot like a set of stories on paper or verbal, built around cautiously constructed events that make up a story. Schwartz, (1996) further listed eight steps that guides this concept as:(i) Identification of the focal issues or decisions (ii) Identification of key forces in the local environment (iii) List of the driving forces (social, economic, political, environmental (iv)technological forces: 'What are the macro-environmental and technological forces listed in step 2 (v) Ranking of key factors and driving forces by importance and uncertainty (vi) Selection of scenario logics, in effect, the axes along which the eventual scenarios will differ, (vii) Fleshing out the scenario to the key factors and trends listed in step 1 and 3 (viii) Exploration of the implications and selection of

leading indicators and signposts. Scenarios are used to inspire exchange of ideas and aid premeditated planning among those in authority; it arouses open communal dialogue; to support decisions on complex issues with long-term effects.

Wilson (1998) suggests a total of either two to four scenarios as convenient number of scenario that should be developed successfully for any decision making process Wilson (1998) puts forward five principles for evaluating and selecting scenarios:

- each selected scenarios must have the likely potential of being carried out,
- each scenarios should be observably different having deferring change on the same subject matter,
- there has to be consistency in the mixture of reasoning for each scenario to make sure that there is no contradictory construct that would weaken its trustworthiness,
- each scenario should add detailed understanding of the truth of a situation for ease of opportunities that can help to make the decision identified in step one and
- each scenarios chosen should be able to face up to the organization's conservative understanding and established means for achieving defined objectives about the future.

If at all possible, scenarios created by different sets of people for a particular, acknowledged reason from start to finish should build a common thought (Peterson et al., 2003). Scenario exploration uses participatory and problem-oriented methods making accessible tools that incorporates data, carries out a step by step look at the future in a well-defined way while incorporating human choices in sustainability discourse (Swart et al.,2004).

Wilson and Ralston (2006) provided an all-inclusive and comprehensive process for developing and using scenarios. Their process involves 18 steps, which are provided in Table 1. Each step in this process is a critical point of adding value and exposing mental models and assumptions during the scenario project. These 18 steps are also in four general phases of scenario planning, namely, (a) "getting started, (b) laying the environmental analysis foundation, (c) creating the scenarios, and (d) moving from scenarios to a decision" (Wilson and Ralston, 2006, p. 25). Steps 1-6 are all related to starting up the scenario project, and these steps are meant to define the scope of the project and assemble the scenario project team. Steps 7-10 are concerned with exploring the internal and external environments and putting these together in a cohesive picture. Steps 11-14 focus on developing the scenarios themselves based on all of the work done in the previous steps. The final phase includes steps 15-18 that cover the use of the scenarios to examine current strategies and decisions. Wilson and Ralston's (2006) text provides a detailed road map through each of these steps with specific instructions and practitioner tips.

Table 1: A step-by-step approach to developing and using scenarios

Step 1: Develop the case for scenarios	Step 10: Conduct focused research on key issues, forces and drivers
Step 2: Gain executive understanding	Step 11: Assess the importance and support, and participation uncertainty of forces and drivers
Step 3: Define the decision focus	Step 12: Identify key "axes of uncertainty"
Step 4: Design the process	Step 13: Select scenario logics to cover the "envelope of uncertainty"

Step 5: Select the facilitator	Step 14: Write the story lines for the scenarios
Step 6: Form the scenario team	Step 15: Rehearse the future with scenarios, views,
Step 7: Gather available data	Step 16: Get to the decision recommendations and projections
Step 8: Identify and assess key	Step 17: Identify signposts to monitor decision factors
Step 9: Identify the critical forces	Step 18: Communicate the results to the and drivers' organization

Source: Wilson and Ralston (2006, p. 25).

The reasons for the choice of scenario analysis as one of the tools in collecting data for the study is that outside the planning phase, scenarios reveal the dynamics of change and use these insights to reach sustainable solutions to the challenges at hand. Scenarios help stakeholders break through communication barriers and see how current and alternative development paths might affect the future. The ability to illuminate issues and break impasses makes them extremely effective in opening new horizons, strengthening leadership, and enabling strategic decisions. The online scenario approach for this study has helped unlock the mind of participants such that unbelievable inputs were obtained from the participants themselves. Through the interactive sessions participants helped diversify each another's long-held opinions and encourage particularly rethinking towards change on certain communal way of life, particularly areas for which they have fixed mind plan. Leadership initiatives in participants in better handling week signals and new situations were promoted. This includes opinions and information from all participants both those with marginal and core stake for effective future planning and development of Abuja (to suit the purpose for this paper) (Achuenu and Irurah, 2016; Achuenu, 2019). Content and context for the scenarios arise through consideration of demographic, economic, and cultural social and environmental phenomena, as well as past, present, and possible future trends of Abuja.

Materials and Methods
Wilson and Ralston (2006) scenario step by step approach was adopted and combined with the underlying framework of Kok et al., (2011), similar to what is described in "five steps methodological framework". These steps were further modified into two online phases (Stage 1: Scoping Level and Stage 2: Selection of scenario that is taken as the target vision) using Web 2.0 Technology such as Email, Facebook, WhatsApp and Blog (to suit the purpose for this paper (Achuenu and Irurah, 2016; Achuenu, 2019).
The scenario planning exercise started with a scoping session by first assessing focusing on the knowledge base level of participants on Abuja, its historical context, development and their understanding of the Abuja city's vision. Again, a briefing was served as an orientation for participants to familiarise themselves with the topic of discussion, to address issues crucial to the entire exercise and scenario development process. Four major points were noted, they include: reasons why participants feel there was need to re-vision a desirable future for Abuja, reasons why participants felt there was no desirable vision for Abuja and suggested that a common wanted (desirable) future for Abuja could be envisioned. Also, information on neither whether participants have visited nor lived in Abuja were also obtained, this information helped understand the category of participants engaged with. This helped the researcher to understand and have a common understanding of the composition of the kind of participants that is engaged in the entire exercise. This was carried out in an interactive session that required most of the time a "Yes" or

"No" or a direct response (see Table 2).
The use of different online platforms in developing this kind of scenarios process in an iterative procedure had not been attempted before now. The exploratory scenario approach is qualitatively developed as the process involves a broad mix of tools and methods. Different levels of participatory activities were used to develop scenarios, covering a range of topics in order to maximize the type of issues that can be addressed concerning both long term and short-term actions. To arrive at varying scenarios twenty-eight (28) relevant open-ended questions were administered. The questions were directed to either meet the societal need or how their functions can be fulfilled in a sustainable way in the farthest future with the assumption that it is always possible to define the Abuja societal need and function in this paper. Crucial to the scenario development, the 4 platforms, time issues, participation and most importantly the inputs drawn from participants to ensure that the scenarios developed are well guided, relevant and credible for the study purpose. The platforms show the different levels of iterations 1, 2, 3 and 4 (see Figure 2, 3, 4, and 5). Participants were sourced bottom-up from Nigerians in the diaspora and Nigerians residing in the country. At stage one, 142 persons participated while at the second stage 291 persons participated across board all 4 platforms. The age bracket of participant fell between 18 and 64 years old.
At the scenario planning stage, several steps were engaged in, right from the scenario development, voting stages down to the re-visioning process of the vision. This is all in a bid to ease participants understanding and speed up the re-visioning and envisioning process in spite of the increase in the number of online iterations. Email platform (the first iteration process used to test the study tool) took close to two weeks as against the initial nine days proposed, those of the Facebook extended from the initial fourteen days to five weeks and the WhatsApp lasted for as long as six weeks as against, the twenty-one days earlier proposed. This consistent change in response time was attributed to the inability for respondent been able to give quick response to each post and accompanying questions. The entire time frame (from start to finish) lasted within a span of 4 months.

Findings and Discussions
Stage 1: Scoping Level
The scoping stage tended to give an overview of how knowledgeable, informed and the mind-sets of participants on the effect and impact of the current state of Abuja. At the scoping stage, participants were able to tell if they felt the current vision was desirable or not. These responses were a mix of participants opinions, 50 out of 142 participants see the vision as desirable while 102 participants felt otherwise (see Table 1).

Table 2: Total number of responses for each platform showing how desirable the current vision is amongst participants

Platform	Yes	No
WhatsApp	30	66
Facebook	11	24
Email	02	09
Blog	03	03
Total	50/152	102/152

Source: Adapted from Achuenu, (2019).

Participants who desire the vision suggests how the desirability of the vision can be bettered (see excerpt below); with reasons to back their stands. They argue that

Nigerians are interested in the Abuja vision and this interest is seen both in government effort to develop the city and the influx of migrants into the city. They opine that most Nigerians wants the Abuja master plan to be strictly adhered to. If only certain basics infrastructures (affordable housing, medical care, transportation, education, jobs and security of lives and property) are made available for the masses. Nigerians irrespective of religious beliefs, ethnic group, age etc. want to live in a society where they can have peace and advance their aspirations and that of their family units. Thus, many of them see Abuja as that place. The excerpts below are in the very words of participant

- I am not sure of my understanding but I think the development is in phases and there is plan to move to the next phase. (May be those in FCDA or development control may say something stronger)
- The major problem has to do with inconsistencies in implementation of policies and laws guiding development of the Federal capital territory.
- The master plan for Abuja city has been distorted with multiple change of use that has affected the functionality of the nation's capital.
- The planned population have been exceeded resulting in overstretched infrastructure leading to unsatisfactory waste management among other vices.
- Development in the city is of high world standard, with adequate development control being put in place. However, the sub urban cities are neglected.
- At the onset of creation of Abuja municipality, it was canvassed that it is to centrally position all the states for fair representation. As such it would be a virgin, detribalised area amongst other things.
- The present city is now being claimed by the original settlers. More so the present city is closer to the Northern part of the country; it's not at the centre per se as we were told.
- When the seat of government moved to Abuja it assumed a class structure which is only favourable to the high class of the Nigerian state.
- I can also say that the government seem to have lost its grip on the developmental plan.

Source: Adapted from Achuenu, (2019).

Participants who felt that there is no desirable vision for Abuja, blames it on the failure of the planning strategy for the city vision. They attribute this failure to laxity on the part of those charged with planning and managing the city and how they bow to political pressure in effect derailing the entire vision for the city due to poor implementation and bad governance. is too wide. The incompetence of administrators meeting the needs of the masses results in a very wide gap in the disparity between the high class and the poor, making the poor masses to seek contrary alternative leading to further distortion of the city visions and plans. The original inhabitants or indigenous have begun to claim ownership of the city thus deterring the realization of the vision for the city of Abuja as''the city of unity''.

They suggested ways out; the need for change of mind set towards self where individual interests must be same. The city administrators should be allowed to be appointed from any part of Nigeria not zoned to only northerners as it has always been the case. Housing should be made available and affordable to the low and middle income; refuse disposal should be better managed. Ethnicity to a large extent affects our choices and reasoning. Some tribes like to live in clusters and attach less importance to the built environment, while others prefer large, well-spaced settlements.

Participants suggested several steps on ensuring a common future for Abuja; more strategic government policies so much so that it leads to the reduction in the disparity and inequality between residents. Abuja should be seen as a city for all since every economic, environmental, social, cultural, political impact does not affect only a particular set of citizens but all; no tribe should lay claim to owning

the city by any means. The way forward to ensuring a common desirable future for the FCT is to prioritize the need of the citizens vis-à-vis the challenges to achieving the city's prioritized need(s) by eliminating the tendencies for religious, tribal, political and sociocultural dichotomy. Citizens are urged to put their love for the country's growth and welfare first. For instance, American citizens can risk their life for their love for the country but can Nigerians do that? For there to be a common future there must be a common target.

Stage 2: Selection of scenario that is taken as the target vision

The chosen scenario/vision was selected by creation of varying scenarios/narrative stories. This is the second but the most important scenario planning step where 87 different types of future visions were created and collated in terms of themes, number of scenario and their spatial extent. These 87 versions of visions/scenarios reflect the different background and personal thought pattern of each participant for the city of Abuja. The email and blog platforms had a total of 9 generic scenarios generated. These visions contained several solutions for different major unsustainability's issues, while in the WhatsApp and Facebook a total of 78 vision and more detailed scenarios were generated that depicted different sustainable lifestyles that could be seen as each other's substitutes. In addition, WhatsApp and Facebook scenarios did not only contain visions describing their main characteristics, but were elaborated with story lines depicting daily life stories within a specific scenario with suggestions supporting the sustainable scenario (see Table 3). The larger number of visions was because Participants were given large degree of

freedom to develop their own storyline/scenarios. Due to intervene of these visions, they were further down scaled and pulled together and collated under 9 compact themes with broad storylines outlines (see Table 3). At this point a first level voting was carried out to ease the selection process of the most preferred vision, as all nine visions were reposted on all four platforms (see Table 4 and Fig 1). In all the four platforms, generating a single vision or several scenarios for each platform had each specific advantages and drawbacks, but a systematic evaluation of this was not carried out in this study.

Table 3: The scenarios and their subsequent downscales

Platforms	1st Level Scenario (obtained through participant first attempt)	2nd Level Scenario (Downscaled by the researchers through back-office work)	3rd Level Scenario (downscaled through second voting)	4th Level Scenario (downscaled by selecting the vision with the highest participant's vote)
Email	5	2	2	1
Facebook	14	5	3	1
Blog	4	2	2	1
WhatsApp	64	24	9	6
Total scenarios	87	18	11	09

Source: Adapted from Achuenu, (2019).

Table 4: Summary of distribution of votes according to the first level voting

	Vision	WhatsApp	Facebook	email	blog	T0tal votes for each vision	Votes and ranking of visions	Modification of vision name through the webinar workshop
1	Abuja, city with good plexus of urban socio-economics factors	43	16	04	03	66	66 participants had their vision come under this vision - making this vision top of other visions.	'Blossoming Abuja: The vision of a socio-economically dynamic city- This vision insists on imposing a middle framework or a general city system that facilitate common living standards for all city dwellers irrespective of their socio-economic status. The city structure should reflect a general spatial and social perspective across the varying strater of the Abuja city and its neighbourhoods, making it an attractive and blossoming city.
2	Abuja, traffic free flow City	08	26	02	02	38	38 participants for the Facebook have their vision come under this vision making it second position.	Sustainability Eventually Abuja: A vision of the transformation of out- dated transport infrastructure.
3	Abuja, the Centre of Unity	10	04	11	01	26	26 persons' vision for the email come under this vision, making it the third vision and position	Abuja: The cohesive city- Ensuring a city for all. These persons prefer to align with the current vision of "UNITY" for Abuja.
4	Abuja, An environmentally friendly and safe city	09	05	02	09	25	25 persons' vision for the blog comes under this vision, making it the fourth vision.	Abuja: A vision of a compact and green city. This vision is geared towards addressing environmental issues. The compact and green city vision offers an interesting urban landscape, a healthy functional mix and good quality design of its built environment (public spaces, recreation, gardens). It offers access to green areas and open spaces for everyone. This vision goes beyond reducing CO2 emission- it calls for a collective realization of climate change, reduction of extreme weather condition.
5	Abuja Monumental City	05	09	02	01	17	Vision 5 and vision 6 tied with 17 persons having their vision come under this vision making it the fifth vision	Abuja: A vision of a creative and tourist city. Living arts, monuments and culture are clearly visible in a creative and tourist vision. This vision is to manifest itself in various forms, from creative use of public spaces to distinct urban furniture, labelling systems in identifying places and street lighting. Cultural expression is mainstreamed into public services.
6	Abuja, city of shelter	04	05	07	01	17	Vision 5 and vision 6 tied with 17 persons having their vision come under this vision making it the fifth vision.	Abuja: A vision of a sustainable urban inward growth. A city with various forms of neighbourhoods where different classes and generation must be willing to live together to curb the negative impact of segregationally divides between the rich and the poor. A city where mass and affordable housing is a priority and its used as a means of controlling the outward growth of the city (urban sprawl). The city instead is encouraged to grow inwards in various

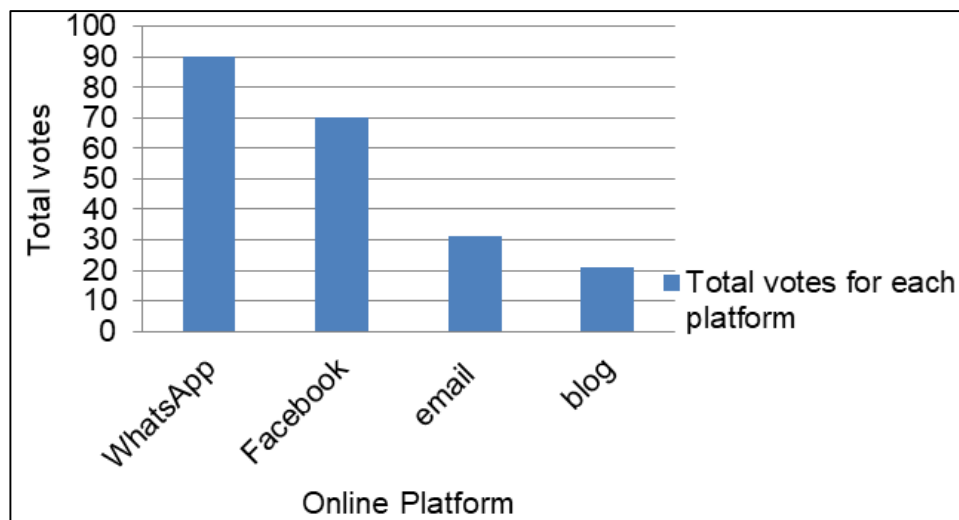|								
								forms thereby creating a form of re-densification. This will foster social agreement and innovations in terms of quality of life, price affordable housing and family friendly neighbourhoods. The satellite towns will also undergo a better urbanization process with a more colourful, socially mixed and multi- functional outcome.
7	Abuja, the technological crime free city	06	03	01	00	10	10 people's vision comes top under this vision, making the vision come six positions	Abuja: A vision of sustainable consumption modes. This vision agitates for an "energy subsidiary principle" where the city becomes highly technologically inclined with focus on energy efficiency. It encourages the use of diverse local and regional energy sources. It's a vision that plans for a city with minimal or no crime at all. A city void of violence and security threats for all its inhabitants and a city where electricity and fuel challenge is reduced to it barest minimum.
8	Abuja, population decongested City	02	02	00	04	08	08 persons' vision comes top under this vision making the seventh vision.	Abuja: A population decongested city. The insist on decongesting the city centre by making sure Residence live at the city suburb and come to work at the city centre since the city is originally an administrative city. Strong planning policies with supporting measures such as planning green belts and green corridors along the periphery of the city, likewise fiscal incentives or land pricing are used. This vision is similar to the current happening with regards to the city urban structure. This is to guide against the upsurge of all manner of people into the city
9	Abuja, a rebranded city	03	01	01	00	05	This vision has 05 persons aligning with it. Making it the ninth and least most wanted vision	Abuja: A vision of a leading, pacesetting and rebranded city. The vision is concerned with efficiency and effectiveness in all sectors- a city system where the city leads in its entire ramification.
	Total votes for each platform	90	70	31	21			

Source: Adapted from Achuenu, (2019).

Fig.1: Total votes for each platform
Source: Adapted from Achuenu, (2019)

The essence of adopting a voting system on all platforms was to ascertain how valid the selection process was (see Table 6) and to ensure that the 9 storylines were not influenced by the researcher and not completely deviated through the Webinar process. The Voting process also aided participant in deciding which vision is the most preferred. In line with the voting power of participants, the visions were further ranked from top to bottom. From the ranking process Vision 1 topped all other visions with 66 participants on the WhatsApp. The Facebook had 38 participants with their vision coming under the 2nd vision making it second position. 26 persons' vision come under third vision, making it the third position, 25 persons' vision

from the blog come under the fourth vision, making it the fourth in position. The ranking continued up till the least vision with 8 persons aligning with it. Making it the ninth and least most wanted vision in all.

Furthermore, in order to also validate the selection process, participant's opinion on the selection process was sought. Information obtained from table 6 below showed that 72 (51%) out of 142 persons had their visions come in line with the 9 visions listed above while 17 (12 %) out of 142 people felt their visions were not adequately addressed. Relatively this result indicates and attests to the validity of the visioning process.

Table 5: The validation process of the 9 visions selected

Platforms	Yes	No	No response	Total
WhatsApp	37	17	155	209
Facebook	18	12	28	58
Email	10	03	02	15
Blog	05	00	04	09
Total 100%	70	17	56	291

Source: Adapted from Achuenu, (2019).

In order to complete the scenario process, it is important to first arrive at four desirable future scenarios or alternative futures. In otherwise to be able to arrive at the four desirable futures, a second level voting and ranking was applied (see Table 6). The essence of the second level voting was to reduce or eliminate bias that may arise while choosing the four alternative scenario visions. The second voting exercise also helped to move towards the most 'preferred future vision' for Abuja. Participant's stakeholders were asked to treat the process as 'Final'. Participants were asked to arrange the 9 exploratory scenarios (see Table 7) in order of preference using only numbering system, starting with the scenario they most preferred to the least. This led to the selection of a set of visions with four distinctive themes according to order of preference, as alternative A, B, C and D also termed

scenario 1, 2, 3, and 4 (see Table 7). Vision 1 took 1st position, with 40 votes. This makes it the second time the vision 1 comes first position-making the vision top of other visions and therefore the most preferred, Vision 4 came 2nd position with 28 votes to become alternatives B. Vision 6 came 3rd position with 26 votes Making the vision come third position and invariably becoming alternative C, Vision 3 came 4th position with 23 votes to become Alternative D, Vision 7 came 5th position with 21 votes, Vision 2, 5 and 8 all came 6th position., with a tie of 19 votes each. Vision 9 took 7th position and the least preferred vision with 8 votes. The first four scenarios discussed above, tell the kind of possible future visions participants desired for the city of Abuja. The scenario with the greatest number of participants votes became 'the most desirable future vision' or 'a normative scenario' invariably becoming the 'target vision and most preferred prototyped vision' for the city while the other three scenarios become alternative future visions. At this point the prototyped vision becomes the vision that must be engaged with. It is out of these four scenarios that scenario one became the final choice thus the target vision and most preferred prototyped vision. WhatsApp had the highest rank with 40 votes followed by those of the Facebook having 28 votes (see Table 8).

Table 6: Distribution of votes and rankings according to the 2nd level voting's

Ranking/Vision	Vision 1	Vision 2	Vision 3	Vision 4	Vision 5	Vision 6	Vision 7	Vision 8	Vision 9	2nd Voting/Ranking of Visons
1st	**40**	07	01	12	06	09	08	03	00	Vision 1 -1st position
2nd	07	11	18	**28**	04	10	04	01	08	Vision 4 -2nd position
3rd	00	19	11	17	14	**26**	07	09	00	Vision 6 - 3rd
4th	11	10	23	04	04	14	07	09	09	Vision 3 - 4th position
5th	03	08	13	08	10	16	21	05	04	Vision 7 - 5th position
6th	02	10	04	10	11	07	09	**19**	03	Vision 2,5&8-6th position
7th	00	03	03	02	**19**	03	05	17	03	Vision 9 -7th position
8th	15	06	04	0	04	01	07	08	14	
9th	04	02	03	0	06	02	02	01	18	

Source: Adapted from Achuenu, (2019)

The choice of scenario analysis as one of the tools in data analysis for the study is that outside the planning phase, scenarios exposed the changing aspects of the city and using the understanding obtained to reach sustainable solutions to the challenges at hand. The fact that scenario's planning does not give details of just one future but some desirable prospects of up to 4 different scenarios as required, also indicate that scenario planning is an excellent tool for analysis in planning city vision. At the end of the scenario exercise, it was observed that there was some form of improvement in the communication level amongst participants as they began to develop common languages for dealing with the planned issue. That is because

scenarios creation helped participants to break through communication barriers and see how current and alternative development paths might affect the future. The ability to illuminate issues and break impasses makes scenario analysis amongst participants instrumental in opening new horizons and enabling strategic decisions. Scenario activities have helped diversify their long-held opinions and improve their critical thinking towards change on a particular line of thoughts they had before the exercise. Hopefully, leadership initiatives in participants have been bettered notably with handling new situations as they arise in the future.

Table 7: Distribution of votes according to platforms at the second level voting

platforms	Vision 1				Vision 2				Vision 3				Vision 4				Vision 5				Vision 6				Vision 7				Vision 8				Vision 9			
	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	Blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog	WhatsApp	Facebook	email	blog
Total votes	40	28	15	09	31	27	11	07	29	28	15	09	37	28	09	08	30	23	16	09	34	30	16	08	30	23	13	05	28	28	09	05	25	20	09	05

Source: Adapted from Achuenu, (2019).

Table 8: The four scenarios

	The Four alternatives' visions	Scenario
Alternatives A	Abuja: The vision of a socio-economically dynamic city: This vision insists on imposing a middle framework or a general city system that facilitate common living standards for all city dwellers irrespective of their socio-economic status. The city structure should reflect a general spatial and social perspective across the varying strater of the Abuja city and its neighbourhoods, making it an attractive city.	Scenario 1.
Alternatives B	Abuja: A vision of a compact and green city: This vision is geared towards addressing environmental issues. The compact and green city vision offers an interesting urban landscape, a healthy functional mix and good quality design of its built environment (public spaces, recreation, gardens). It offers access to green areas and open spaces for everyone. This vision goes beyond reducing CO_2 emission- it calls for a collective realization of climate change, reduction of extreme weather condition.	Scenario 2
Alternatives C	Abuja: A vision of a sustainable urban inward growth. A city with various forms of neighbourhoods where different classes and generation must be willing to live together to curb the negative impact of segregationally divides between the rich and the poor. A city where mass and affordable housing is a priority and it's used as a means of controlling the outward growth of the city (urban sprawl). The city instead is encouraged to grow inwards in various forms thereby creating a form of re-densification. This will foster social agreement and innovations in terms of quality of life, price affordable housing and family friendly neighbourhoods. The satellite towns will also undergo a better urbanization process with a more colourful, socially mixed and multi- functional outcome.	Scenario 3
Alternatives D	Abuja: A vision of the transformation of out- dated transport infrastructure.	Scenario 4

Source: Adapted from Achuenu, (2019).

Conclusions

To a large extent, all four scenarios had the same key and mid timelines while adding and expanding 2-3 aspects that were very crucial within the constraints of the contextual storyline. Some of which lay emphasis on the quality of life, efficient means of transportation, education, good governance and adequate social amenities are all additions that highlight the underlying storyline. In other words, from participant's interactions, all platforms stated that sustaining the prototyped vision for Abuja requires that the vision is viewed through the lenses of their different contextual variables. It was observed by participants that aside from the ineffectiveness in technology transfer and adoption, lack of inclusiveness and participation in planning and implementation. Other significant factors that hinder the achievement of the desired vision are over capitalistic and lack of adequate social oriented programmes by government, corruption, and high population growth, poor maintenance culture, lack of political will and lousy orientation of Nigerians.

Planning can be considered one of the most difficult and ambiguous organizational activities (Mintzberg et al., 1998), and the level of uncertainty for decision makers to account for has never been so high. There will never be a method that is 100% reliable in terms of its ability to steer city planners away from crisis (Mitroff, 2005a). However, scenario planning is the best of what can be offered to address these serious deficiencies in Abuja city vision and planning. This study is required to understand how and why these practice-born techniques work. In addition, study should also look for ways to transfer these techniques to organizations. Like everything else in a complex world, proper crisis planning can never be a purely technical activity. It is profoundly political. It is profoundly philosophical as well. Indeed, it is the failure of our underlying concepts and institutions to keep pace and to change that is at the root of difficulties. The clock for the next crisis is ticking constantly. These techniques can initiate change and equip crisis managers to prepare and respond to the next crisis.

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