

**EVALUATION OF SOCIAL MEDIA AS A TOOL ENABLER FOR SMART CITY
DEVELOPMENT -A STUDY OF SELECTED LOCAL GOVERNMENTS IN LAGOS- NIGERIA**

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Abstract

Social media can be regarded as enablers of social interaction in a way that defies the isolation that tends to characterise many urbanised societies or ways of living. Specifically, the tools available to this end include platforms like Twitter, Instagram, and Facebook. These tools are required and important towards an enhancement in the communication system and quicker way of making provision for rendering services as an idea and innovation towards becoming a smart city. The purpose of this study is to evaluate the prospects of integrating social media tools into the strategic communication required for the development of Lagos smart city. This is achieved through a survey research design, where structured interview questions are used to collect data from the public servants. Eight (8) local government were randomly selected for this study out of the thirty seven (37) local government in Lagos State in order to explore the approach of social media and its connection with its impacts on Lagos smart city vision. The findings after a content analysis shows that some communities have strategy and plan towards using the social media technology to improve and enhance the relationship and interaction with the citizenry. Most communities in the local government are using these social media tools without any structure or strategy being put in place towards the development of Lagos smart city. The study recommends a more consistent, deliberate and practical moves by the local governments working with media expertise to realize the dream of Lagos smart city.

Keywords: Smart-City, Smart-People, Social-Media, Community-Manager, Communication.

Introduction

The use of social media platforms is expected to enhance a city's experience through the enormous potential of these platforms to facilitate citizens' interaction and sharing of opinions and information. Social media platforms could make a city smart. There has been a rise in research concerning what makes a city smart, its element, alongside the functionality as most cities are encountering new urban challenges. The concept of smart city focuses on urban development through implementation of technologies and systems to effectively and securely manage the city resorts, with the aim of enhancing the citizen's standard of life. There is no doubt that the 21st century is faced with fast urbanization and growing population, which presents enormous tasks and pressure in our urban areas (Abdulkadir, Adamu, & Abdul-Fatou, 2017).

According to Suci, Uşurelu, Iosif, Rogojanu, and Răducanu (2018), the goal of a smart city project is to make the public life better, to promote technical innovation and to improve the efficiency of urban management. Smart city development and social technologies were introduced to enhance communication and improve relationship among citizens. Social media technology is part of the avenue towards smart city development.

A smart city can simply be identified as a place where traditional networks and services are made more malleable, efficient and maintainable using the act of digital information and telecommunication technologies toward enhancing the functionality of cities for the satisfaction of its occupants. The utilization of ICT enhances information sharing with the public thus creating an avenue for standard government services and citizens satisfaction (Kumar, 2015). Hence, combining cities with smart technology solutions have become the expectation of today's digital age.

With an increase in the population of urban centres, governments around the world are beginning to understand the enormous potential of the emerging technologies by leveraging on the 'Internet of Things' to build a smart city that will enhance efficiency and improve the effectiveness in service delivery to the satisfaction of the public. Technology cannot perform on its own as it depends on humans to make it work. The Smart people concept emphasizes that smart people are a social technology (i.e., an integral part of a smart city); in smart city development and serve as enablers toward meeting the needs of people in the city. Hence, Smart city should be structured with a huge knowledge and understanding of people's culture, behaviour, needs and lifestyle.

Smart city concept hinges on smart people. Smart people understand the importance of advance technology in their surroundings to get support, opportunities, and to make a healthy environment. Smart people can generate a pleasant city environment and a positive workforce (Mohanty, 2019). The use of social media platforms cannot be left out as a major tool in smart city development. With the Covid-19 pandemic, most people are now dependent on the use of technology and hence the need to especially engage in city planning in terms of smart city. Lagos State government has continually emphasized the need for Lagos smart city.

This research thus evaluates the extent of smart city development in some selected local government in Lagos state. The specific objectives of the research are to: i) Identify the social media platforms in use and level of followership and friends in such social media platforms in each local government under study; and ii) determine the extent of usage of the social media platforms in terms of providing empowerment, addressing queries and complaints, information, collaboration and inclusion. The research questions as a fall out of these objectives are: i) what is the extent of followership and friends on the social media platform that exist in the local government; and ii) to what extent has social media platform impacted on the citizenry with regards to empowerment, addressing queries and complaints, information, collaboration and inclusion.

The paper is segregated into five sections; following this introduction is literature review, study methodology, responses to the research question, conclusion and recommendations.

Literature Review

Social Media Concept

Social media platforms like facebook, twitter and instagram can encourage engagement of self - organization towards participating in the smart city development and their community administration (Klang, 2011). The citizens (smart people) engaging in the smart city development consider trends on social media, and this can have a great influence in the real life. Social media is seen as a source of knowledge towards smart city and development. Most recently people change their usage of available technology. Smart city can make use of data in which the users are spreading on the social media platforms. In smart city, different people share information on social media about events that unfold and

been observed, such information has probability to be mined and process towards detecting the state of the events.

Smart City

Smart city is an urban area that uses different types of electronic data collection and sensors to supply information which is used to manage assets and resources efficiently (Townsend, 2017). It is further stated that it is a designation given to a city that incorporates information and communication technologies (ICT) to enhance the quality and performance of urban services such as energy, transportation and utilities in order to reduce resource consumption, wastage and overall cost. The smart city council says it is one that has digital technology embedded across all city functions.

Ho (2012) and Hoogwout, (2012) ascertained that smart city and the use of technology toward implementing services and promoting governments activities has been in existence but most of them are related to the idea of one-stop online service towards diffusion of government activities.

Empowerment

According to the definition by the United Nations Economic and Social Council (2015), empowerment ‘is the way by which people can take control over their lives and acquiring the ability to make strategic choices’. Wallerstein (2014) defines empowerment as a social-action process that enhanced participation of people, organisations, and communities/ society towards the goals of promoting individual and community control, political efficacy, improved quality of community life, and social justice.

Queries

Query can be described as a question, often one expressing doubt about something or looking for information (American Dictionary, 2017). It is also a question, often expressing doubt about something or looking for an answer from someone and to ask questions of especially with a desire for authoritative information.

Information

Information has been defined in numerable ways. According to Cookie Monster (2017) referred it to as “news or facts about something,” while others have defined information as the meaning of a signal and some understand it as the signal itself. It may prove useful here to examine the requirements of a satisfactory definition of information. Dretske (2018) suggests that we must preserve enough of our common understanding of information if we are to maintain a link with the majority of the ideas about information present in our culture.

Collaboration

Collaboration is broadly defined as “a situation in which two or more people attempt to learn something together,” and more specifically as joint problem solving (Dillenbourg, 2014). Roschelle and Teasley defined collaboration more specifically as “mutual engagement of participants in a coordinated effort to solve a problem together,” (Dillenbourg, 2014).

Inclusion

Inclusion has also been defined as agents of accountability and standards. For example, Ofsted (2015), whilst stating that inclusion ‘is more than a concern about any one group of peoples. Blunkett’s statement also employs inclusion with the caveat of economics. Inclusion in these terms, whilst promoting ‘a route to equality of opportunity for all’, would appear to also be about providing support for ‘a productive economy and sustainable development’ (DfEE, 2016).

Theoretical Consideration

Technological determinism theory: Technological determinism (TD) is the idea that technology has important effects on our lives. This idea figures prominently in the popular imagination and political rhetoric, for example in the notion that the internet is transforming economy and society. Technological determinism has also had a long and controversial history in the social sciences in general and in organization studies in particular (Adler, 2016). Technological determinism was developed in American Economist and Sociologist, Thorstein Veblen. This theory believes that the nature of technology in any society defines its nature. Technological determinism views technology as the driving force of culture in any society, and it determines its courses of history.

Technological determinists interpret technology in general and communication technology as the basis of society in the past, present and even the future. Therefore, smart cities from a technological deterministic view produce a lot of data and require the use of robust geographic information systems to analyze this data (Jan-Philipp, 2015). Technological determinism has been criticized based on the fact that technology never forces itself on members of the society.

Study Method

The study was conducted by using a field survey design. The survey design was chosen because it can obtain current information, it is easy to gather large amount of data and can be used to investigate realistic setting. This study adopts a qualitative method to provide valuable insight into responses. Public servants eight (8) Local Government (here coded as 001-008) of Lagos State were purposely and conveniently selected and interviewed.

The interview schedule comprised of questions about the social media platform in use, and the extent to which it serves the need of citizen empowerment, address queries and complains, provide information, foster collaboration and inclusive governance. Responses were descriptively shown using a 5-point Likert scale to measure the extent of social media variables availability in the local governments. Available (Av) = 5; Fairly Available (FAV) = 4; Seemingly Available (SAV) = 3; Seemingly unavailable (SUAV) = 2; Unavailable (UAV) = 1.

RESPONSES TO RESEARCH QUESTIONS

Responses from the interview in answer to research question one and answer to objective one: Social media platforms in use and the extent of followership and friends in the local government under study. Table 1 shows the analysis from the eight Local Governments.

Table 1: Social Media Platforms and Extent of Followership and Friends

Local Government	Twitter			Instagram		Facebook
	Followers	Follow	Tweets	Followers	Follow	Friends
001	1281	2503	4144	1071	500	4523
002	6150	3169	2017	6763	1285	3188
003	4417	2549	2425	3205	1562	4178
004	5179	1713	20074	3099	2898	5000
005	4719	427	4691	2753	1157	4322
006	3271	889	2177	9526	2035	4277
007	8813	6172	5517	8855	6062	4592
008	5285	3448	11247	6479	5530	2648

Source: Social Media (2021)

Responses from the interview in answer to research question two and answer to objective two: determine the extent of usage of the social media platforms in terms of providing empowerment, addressing queries and complaints, information, collaboration and inclusion in the local government. Table 2 shows the summary of responses in these areas.

Table 2: Usage of the Social Media Platforms in terms of Providing Empowerment, addressing Queries and Complaints, Information, Collaboration and Inclusion

Local Government	Empowerment	Queries and Complaints	Information	Collaboration	Inclusion
001	3 (SAV)	3 (SAV)	5 (AV)	3 (SAV)	5 (AV)
002	3 (SAV)	3 (SAV)	3 (SAV)	3 (SAV)	5 (AV)
003	3 (SAV)	3 (SAV)	5 (AV)	5 (AV)	5 (AV)
004	2 (SUAV)	2 (SUAV)	2 (SUAV)	2 (SUAV)	2 (SUAV)
005	2 (SUAV)	5 (AV)	3 (SAV)	3 (SAV)	3 (SAV)
006	3 (SAV)	5 (AV)	5 (AV)	3 (SAV)	3 (AV)
007	3 (SAV)	5 (AV)	3 (SAV)	3 (SAV)	3 (SAV)
008	3 (SAV)	5 (AV)	3 (SAV)	3 (SAV)	3 (SAV)

Source: Study Analysis (2021)

DISCUSSION

From Table 2, the bold lettering **5 (AV)**, shows availability and usage of the social media platform in the local governments in meeting the identified need in each of those columns. In local government 004, all the variables seem to be unavailable with respect to the use of social media- 2(SUAV). Other responses on the use of social media in the five areas of consideration are here summarized according to the local governments:

Local Government 001

Empowerment:- It was difficult to locate a factor that would lead to ascertaining the creation of empowerment through the usage of social media tools. **Information:-** is created for the local government through the use of Twitter, prior to twitter ban in Nigeria; Instagram and Facebook accounts for the disseminating of information; and **Inclusion:-**this Local Government organised virtual public hearing with the citizenry using Instagram and plans to use the same strategy for other matters.

Local Government 002

Empowerment:-This local government employed an actual agency assigned to the task of social media and also manages the activities of other units that have social media tool. **Inclusion:-** The person interviewed in this local government expressed that: *"Youths are the most active in governance;for instance, they suggested a place where football could take place. Invitation for appointment and petitions were resolved offline instead of through online social media."*

Local Government 003

Empowerment:- The closest action taken, was an inclusive budget practice at the local government, which was implemented through the use of their website that gives room for the citizen to participate in budget decisions. Here is an extract from the local government during the interview:

"For the inclusive budget, we create a #makeithappened. We implore citizens using Twitter and Instagram, to state what kind of things they

needed in their neighborhoods. We provided a workshop to teach citizens on how to develop a proposal. Our local government provided a special account of 3 million Naira, just for his project in 2018”.

Information:- The local government utilized the social media tools towards the diffusion of different events and activities, thus achieving a greater influence. **Queries and complains:-** The citizen of 003 petitioned concerning the 2020 carnival organization and security through the social media platforms. **Collaboration:-** It was confirmed from the interview in 003 that social media promotes collaboration between the local government and the citizen especially with promoting cultural activities such as the 2020 carnival which was successfully organized through social media; and **Inclusion:-** the local government utilized YouTube in streaming the city council meeting sessions for others to see and know about their contribution towards public services.

Local Government 004

No responses on all the variables considered.

Local Government 005

Information:- Social media seems available as the local government gave space for operation of Twitter handle prior to twitter ban in Nigeria; Instagram and Facebook accounts which provided information for the citizenry. **Queries and complains:-** Instructions on the way and manner to resolve petitions are done through social media. They however not track compliance and do not have any systematic tracking.

Local Government 006

Information:- In this local government for a couple months in 2021, water supply was suspended and that information was shared through Twitter, second, Instagram and Facebook were used during COVID-19 to have palliatives and sharing of beverages, foods, and money by concerned firms and individuals. **Collaboration:-** At the yearly Carnival, a cultural festival organized by this Local Government the citizen requests, initiatives and projects were discussed and implemented via online social media. Several proposals were collected based on that for different activities for the festival. Also, street names were submitted and changes in activities were circulated with the use of Twitter and Facebook and many citizens participated in the success of the festival. A local government interviewee's response:

“We are looking for this relationship to become meaningful. With our new strategy, we look forward to creating a connection with citizens. Citizens must understand our worries about their concerns and needs. We are interested in their problems and we will track their petitions and claims until they receive an answer. We want to have allies through the social media(theLG interview)”.

Inclusion:- this exist, for example, in this local government, the officials put on social media question as to which artist should be brought to the people during the yuletide period, the rate of responses through tweet, Instagram and Facebook suddenly went up in such a manner that the organizing committee has to interject by putting a stop to the tweeting and comments section of the social media account when possible danger was sensed.

Local Government 007

Queries and complains:- The citizens in this local government are addressed via social media and they organized programs and meetings through social media tools, and are determined to use the platform to gather and track complaints of the people, petitions on services. With the use of social media, they were able to create tickets for the program, provided feedback, and reported thereafter on the same platform.

Local Government 008

Information:- Twitter handle exists prior to twitter ban in Nigeria; Instagram and Facebook accounts are operational for disseminating of information. **Queries and complains:-** In this local government, citizens received policemen phone numbers and patrol team numbers shared through Instagram or Facebook in order to alert them in case of emergency. This has assisted the local government on several occasions.

Conclusion

It is very much compulsory for Smart city to use social media as the main tool enabler to enhance communication with citizens, improve collaboration, resolve queries and provide empowerment for the citizenry, inclusive governance. Data gathered from the eight (8) local governments in Lagos State shows the initial steps towards smart city development.

An essential trend for the research of the smart city development is to acknowledge the usage of technology towards interaction, communication, and creating a relationship among the agencies, of government public officials, and the citizens. This research was geared towards understanding how public official have managed the tools of social media with the citizens; as a first step towards developing a smart city in Lagos state.

The findings of this study revealed that, lack of strategy and dedicated personnel for that purposes is lacking. Other factors affecting social media tasks in the local government includes quality control irrespective of information loading, dissemination and tracking compliance where necessary.

Recommendations

This study recommends that deliberate effort should be made towards developing smart city by making the people smart, develop workable strategies, dedicate a unit in each local government for ICT and proper handling of online social media activities; sensitize the citizenry, listen to challenges raised and resolved. Smart city is not a days' job. Hence all efforts made in that direction now should be improved upon.

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