Database Integration In Nigeria: A Case For Improved Security And National Planning

Ukegbu Chibuzor Chimezie[1], Adannaya Simeon Ivo[2], Eziechina M. A.[3] and Uche Daniel C.[4].

[1 - 4]*Department of Computer Science, Akanu Ibiam Federal Polytechnic Unwana, Ebonyi State, Nigeria.*
[1]ccukegbu@akanuibiampoly.edu.ng
[2]asivo@akanuibiampoly.edu.ng
[3]maezichina@akanuibiampoly.edu.ng
[4]uchedan2007@yahoo.com

Abstract—**Presently, Nigeria is critically facing security challenges because people are not uniquely identified and tagged. The situation has led to insecurity in Nigeria with different trends and dimensions from one geopolitical zone of Nigeria to the other. For instance, this has led to various faceless activities such an Islamic sect called Boko Haram in the NorthEast, rampant armed robbery in the South-West, notorious robbery and kidnapping in the South-East and South-South. Corruption and unemployment are all over. To curb this menace, a central national database that will synergize with other databases in the country is needed for proper identification of persons . This paper therefore focused on the creation of the central national database for security and national planning, and to describe each person individually and uniquely. Also, the data model developed established the use of a unique code, the National security code(NSC) as the primary key to identify each entity/person, in relationship within and among public service databases. Data for this study was collected from secondary sources: examination of documents, magazines, journals, Newspapers, library sources and internet sources. The result showed that over 80% of Nigerians are not properly identified, captured and registered into a national database (which is non-existent) More so, several databases exist in various forms in various private and government agencies like the Bank Verification Number(BVN),Retirement Savings Account PIN, National Identity Number etc that are related but not integrated for the purpose of identification. However, with a viable centralized database, which will connect all other distributed databases scattered in various agencies and firms, the benefits of identity management and its impact on combating the insecurity situation in the country would be realized.**

Keywords—Central National Database, National Security code, Entity relationship (ER), Residency code, Attitudinal Change, Planning.

I. INTRODUCTION

Database integration involves combining data residing in different sources and providing users with a unified view of them. This calls for a centralized database that stores data or information in a particular location within a network. It allows data from existing database to be collected and stored in a single database for sharing, analysing or updating information in an organization.

The volume of data, organizations and government agencies usually collect and store has been rapidly increasing, and this brings the need for more efficient and effective means to manage these data. The current practice by organization and government agencies in Nigeria lead to distributed data with redundancy and inconsistencies at various levels. Agencies like Nigerian Communication Commission (NCC), National Identification Management Commission (NIMC), Federal Road Safety Corps (FRSC), and Banks collect almost same set of data from people. For instance, NCC directed all mobile operators to collect data about their subscribers including biometric data. Similarly, central Bank of Nigeria (CBN) directed all banks to comply with Bank Verification Number (BVN) exercise so that customers' bank details including their biometrics will be linked together to enable CBN have control over bank accounts of customers using unique number identification (i.e. BVN). FRSC also provide drivers with license, they capture details and biometric of drivers during the exercise and store them in their database. Nigeria Immigration Service (NIS) also captured data and biometric of citizens applying for international passport. NIMC is recently registering and providing citizens with National Identity Cards. The citizens' data including biometric are captured and stored within their database. Despite all these efforts by government and agencies to create database at various organizations for data collection and storage, the entire processes are not integrated together and that lead to data redundancy and inconsistency.

Therefore the creation of a central national database in Nigeria is capable of leading to transformation in governance. The population of Nigeria in years 2011 was 162,470,733 as claimed by World Bank. As long as the population is growing without a classified data storage and retrieval mechanism about the people who reside in Nigeria, the possibility of incessant increase in 3C's i.e. Corruption, Crime and Criminality will continue to increase. Hence, the introduction of the central

national (Residency) database in Nigeria to minimize the act of 3C's cannot be over emphasized. A database is a civilized way of keeping digitalized records about public, things or people. However, a national database is a similar data convergence of a nation or community people who share a common language, culture, ethnicity, descent or history. Therefore, the main objective of this paper is to create a holistic overhaul mechanism for anti-corruption, national identity and central coordination of national security. In other words when residents pass through it, will ensure considerable security measure against corruption and national identification by so doing central security coordination would be greatly achieved.

II. REVIEW OF RELATED LITERATURE

The only way to sustain this transformation agenda especially National security and nation planning in Nigeria is to create a Central National Database and issue all residents in Nigeria a National Security Codes (NSC) including the inmates, immigrants and the Diaspora. Furthermore, the National Security Code must be an official identifier in the country and must be quoted. In essence, all the present decentralized database of various interests and MDAs must be upgraded to include NS code attribute so that, entity can be clearly identified between or within and among their relationship with the public. Central national database and its associated security apparatus is the only tool that can minimize security crises in the country. "We have no better security option than to change the attitude of our country men." Also, we have established that "Government is the security agent while all of us (citizen) are the security guards." We have no doubt in our mind that if Central National Database is managed as prescribed, security will be greatly achieved in Nigeria. Also, ECOWAS community can legislate to explore and implement this research work to enhance security among the union and thereby create a fraud free trade zone in sub-Sahara of West Africa [1].

According to [2] a national database is an organized data or numerical environment where every citizen of a nation and the immigrants are uniquely identified and possesses a strong national virtual identity. This implies that all uniquely identified citizen of the nation will be by this means tracked and also enforce a better moral behavior in him knowing that he is watched or known nation-wide.

[3] stated in BBC News that, "the national identity would stop people using multiple identities and boost the fight against terrorism and organized crime". In-line with [3] notion about national identity as a way of curbing crimes and terrorism; this will go a long way in boosting the fight against terrorism attacks such as Boko Haram, Fulani Heads men etc.

In the same vein, [4] in BBC News commented on the need for identity cards, "they had benefits in tackling serious crimes, such as money laundering and identity theft." However, the creation of central

database is the basis for issuing national identity cards.

III. METHODOLOGY

The most suitable database model is Entity-Relationship Model. Therefore, we have modified and extended entity relationship data model to include utility (i.e. public service) and used as a method for achieving the data capturing and transaction in a typical central national database and attention was drawn to data retrieval, storage, modification efficiency and relationships are based on one-to – many and many-to-many as occasion demand. Essentially, modeling data is paramount in Entity relationship Model. The entity-relationship approach initially proposed by [5], although modified and extended by others, still remains the premier model for conceptual design as ascertained by [6]. Furthermore, according to [7], Entity Relationship model for data uses three features to describe data: Entity, Relationship and Attributes. Entities specify district real world items in an application. Relationships connect entities and represent the dependencies between them. Attributes specify properties of entities and transaction among the entities. This model is applied to create the central National Database in Nigeria to meet the peculiar security situation and fight corruption.
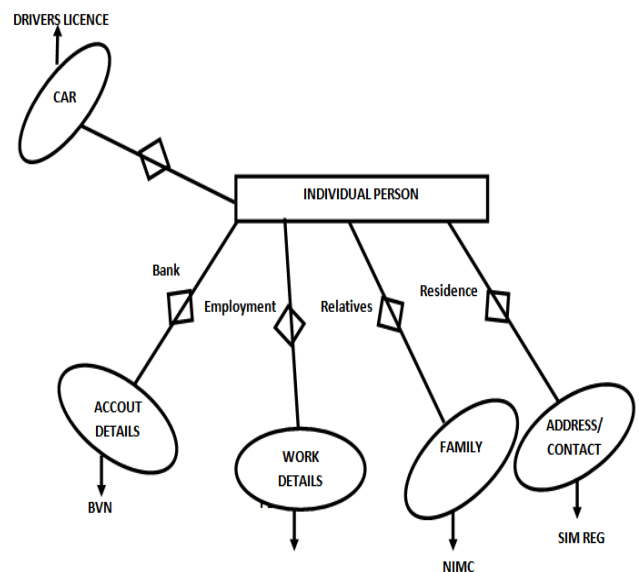

Fig 3.1 High Level Model of the System.

Note: The above figure describe the relationship between one person and multi-activities in the society.

In the Entity-Relationship model, data management is data mining and retrieval. The data mining and retrieval technique is object –relational data model where each entity is modular. Because of the versatility and subsidiaries of the national database, therefore transaction files are the public utility's interfaces. The database application must provide a universal front-end (link) to the database without loss of continuity in the query time. And it's up time hour must be 99.9% and 24/7. For security

reasons, it must be on secured platform and the network architecture must use the internet and virtual private network respectively. Consequently, central national database should be able to expose and enhance originality of information and trace to the master file during conflict or distribution management. Therefore, education and re-orientation must be impacted on all residents on how to keep and use their national security code (NS Code). NS code is often called social security number. It is a proof of residence or nationalization. There are two types of NS code:

NS code-Citizen (NSCC): National Security number for Nigerians. NS code –Immigrant (NSCI): National Security Number for legal-Immigrants.

National database is a dynamic and intelligent data records system. It contains detailed particulars of classified information, resident, citizen, the Diaspora and the foreigners including their biometrics and passport photograph. Usually, it is adequately prepared on relational database conceptuality and expansive data administration and management. National data base is a centralized system, typically multi-user and distributed information systems without a particular data concept. Naturally, residency database is a central national database created to solve numerous issues. Based on that, it has to be archival and expensive in nature but must be adequately prepared and data related.

IV. DISCUSSION

Usually, a typical database be it central national database or certain group of interest's database must comprise of four fundamental elements i.e. Data, Hardware, Users and Software. When these components are integrated, they tend to build a database environment.

Corruption has eaten deep in the society and the only way to curb it is to create a holistic mechanism for anti-corruption. However, the creation of central national database with use of a unique attribute to identify people in Nigeria is an anti-corruption measure. This will go a long way in reducing diverse corruption activities in public services and private life. Therefore, Government can achieve the required set goal(s) on certain policy. For example, Nigeria Housing scheme policy proposes house for all. Without an organized data for appropriate distribution of houses, house cannot be for all because some unscrupulous beings may fraudulently acquire multiple identities to obtain numerous houses while others may not possess at all. Whereas, the government policy is one man one house for it to go round. Also, people who have been convicted in any part of the nation may not be identified unless he is a popular figure in the society, such as an ex-convict may not be recognized during politicking or any other sort of public transaction that excludes ex-convict. Whereas central national database will monitor personality integrity so that convicted person can be seen as an ex-convict not only in Nigeria but anywhere in the world. In the same vein, a car bought and registered in Sokoto State and used in committing crime in Rivers State may be difficult to trace presently but will not be difficult in the regime of central national database. So, such findings may be generally traced if possible i.e. it can be easily traced from multi-owners to the present owner. [8] pointed out the need for unique identifies in case of possibility of two customer with the same name, street address and city. He recommended that, a unique customer identifier must be assigned to each customer. In a similar vein, data collection and security management in central National Database is critically based on primary key i.e. unique numerical identification where each resident is referred to as an entity. Entity's content (records of individual) are captured and stored in a master file sequentially in order of NS code and state of residence. [9] Opined that a unique identifier is needed as a primary key for any good database. Primary key here is the national security number (NS code). However, this unique identifier should remain the legitimate identity in transaction of any sort in the private and public service. To realize that, data capturing may be cumbersome therefore, special attention, funds, work free days and public registration days must be declared by the federal Government for the registration exercise.

The security in this nation is at insignificant level of social reforms. To some extent, people no longer feel free and secured in going about their daily activities in the name of threats to personal security in this country most especially, in the North-East because of Boko Haram sect nefarious activities; South-West for armed robbery; South-East and South-South for rampant kidnapping and notorious robbery. All these menace will be deficient with the creation of central National database. The use of the NS code as official identifier and the universal interface extended to allied securities in Nigeria for verification issues will indirectly wage war against indiscipline, in-orderliness and insecurity. Orderliness shall be automatically inculcated in the minds of all residents. Direct and accurate resource allocation and provision for National Budget shall be based on the central National Database (ND) data and statistics. It will greatly assist government in contemporary strategy and policy analysis.

The creation of central national database will bring about education and employment entrance reform i.e. admission into all Nigeria tertiary and other levels of education shall be based on providing residents' National database certificate of registration or permit in addition to academic qualifications. Also, employment shall be based on providing National database certificate of registration or permit in-addition to academic qualifications. In the same vein, National Database certificate (ND) of registration and permits shall be required to access other public services and as gate pass at all the port-of –entries in Nigeria.

In Nigeria, unemployed, rural dwellers among others find it difficult accessing bank facilities because they lack collateral. This reduces agro-allied business which has drastic effect on the country's gross domestic product (GDD). The central national database certificate of registration can be improvised as security deposit i.e. collateral. This will largely empower the poor and self-engage the unemployed team of youths; thus reducing unemployment and insecurity greatly.

VI. CONCLUSION AND RECOMMENDATION

The only way to sustain this transformation agenda especially National Security and planning change in Nigeria is to create a Central National Database and issue all residents in Nigeria with National security codes(NS Codes) including the imamates, immigrants and the Diaspora. Furthermore, the National security code must be an official identifier in the country and must be quoted. In essence, all the present decentralized database of various interests and MDA'S must be upgraded to include NS code attributes so that entity can be clearly identified between or within and among their relationship with the public. Central national database and its associated security apparatus is the only tool that can minimize security crisis in the country.

The study showed that over 80% of Nigerians are not properly identified, captured and registered into a national database (which is non-existent). This remains the bane of insecurity in the country with our porous borders compounding the problems. But with viable centralized database, which will connect all other distributed databases scattered in various agencies and firms, the issue of identity management and its impact on combating the insecurity situation in the country would be realized.

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