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Financial Inclusion and People Living with Disabilities (PLWDs) in Nigeria: A Disaggregated Analysis



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Abstract

This study investigated the level of financial inclusion and people living with disabilities (PLWDS) in Nigeria. The disaggregated analysis was employed in investigating the level of financial inclusion of PLWDs across the geopolitical zones in Nigeria. The instrument used to collect data was titled: Financial Inclusion of People living with Disability Survey Inventory (FIPWIDS). The construct validity of the instrument was ensured using the Principal Component Analysis (PCA). The internal consistency was verified using Cronbach's alpha technique. Descriptive and influential statistics, Mean and standard deviation, Analysis of Variance (ANOVA) and Sidak multiple mean comparison Post Hoc test were employed for data analysis. The result indicated that there was a significant difference on the level of financial inclusion of persons with disability in the geopolitical zones of Nigeria. The result also showed that the level of financial inclusion for persons living with disability on mobile banking, currency distinction, support services and bank media service access is high but low on other financial services in Nigeria. Hence, it was recommended among others that banks should endeavour to install ATMs with



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braille signage, large fonts and high colour contrast to enable visually impaired persons use the ATM without involving a third party.

Keywords: Financial Inclusion, People living with Disabilities (PLWDs) and Financial System

Introduction

"A people can be judged by the way they treat animals, how they tend to graveyards and how they treat people with disabilities" Adémóliá-Olátéjú (2016),

Financial inclusion remains a catchphrase in the modern financial system with monetary authorities, financial institutions, governments, non-governmental organizations, international agencies and donors supporting the involvement of the vulnerable in the mainstream economy. Such involvement is greatly sought after from groups, traditionally marginalized, such as people with disabilities (PWDs) as well as the population of youth, in general (Turmusani, 2006). The need for the financial inclusion of people living with disabilities stems from the fact that disability is not just any human difference such as age, gender or ethnicity or any social disadvantage like poverty, gender discrimination, or minority marginalization. Disability is both a difference and a disadvantage that is conceptually linked to a person's economic well-being, and therefore financial needs. Financial inclusion for PLWDs is not only germane as a prerequisite to economic wellbeing, but also for the financial system in holism. Disability inclusion represents a wonderful opportunity to "do well by

doing good”— an achievable win-win situation for nations and their citizens and for inclusive financial service providers (Centre for financial inclusion, 2016). Taking the experiences of disabled people seriously may also have important implications for the financial system. Financial institutions can connect to the opportunities of creating cutting-edge products that take special cognizance of the peculiarity of this significant large, viable and attractive market segment, thereby gaining competitive advantage in the industry.

One billion people or 15% of the world's population, experience some form of disability, and disability prevalence is higher for developing countries (World Bank, 2017). Out of the estimated one billion people living with at least one disability, 80% are thought to reside in low and middle income countries (LMICs) (Marc, 2018). According to the report from the National Baseline Survey on Persons with Disabilities (PWDs) in Nigeria as cited in (Adémólá-Olátéjú, 2016), the national average of 3.2 percent is the prevalence of PWDs. What this means is, PWDs are a strong minority. It suggests that about 4.8 million Nigerians are living with one form of disability or the other. If we consider the sample size and the standard deviation, the number could be significantly higher and therefore cannot be ignored or excluded from development efforts.

People living with disabilities in Nigeria are increasingly marginalized from the conventional financial system despite being a signatory to varied ranges of international treaties including the World programme of action concerning Disabled people (1982), the standard rules on the equalization of opportunities for people with disabilities (1993) and the United Nations' Rights of Persons' Convention on the Rights of Persons with Disabilities 2007 which brought the right of people living with disabilities to the front burner in the global comity. Financial exclusion looms in many disabled people's lives and shapes their expectations and aspirations. Financial exclusion manifests in the lives of disabled people through many facets. The architectural design of bank building remains inaccessible to people living with disabilities. This problematique is further compounded by the incessant usage of metal detectors and mantrap or access control vestibule for security *raison d'être*. Alternate financial service providers such as Automated Teller Machines (ATMs), online banking access and fintech requires the deployment of assistive technology for people living with disabilities which are nonexistent or grossly inadequate.

Equally worrisome, is the denial of PLWDs access to loan facilities. Banks deny disabled people access to loans premised on the prejudice that PLWDs are fraught with high loan default tendencies. The

cultural affinity of discarding the inheritance rights of people living with disabilities compounds the woes of PLWDs as they lack requisite collateral security to access loans. PLWDs are treated as inferiors in the labour market. Routinely, they have been denied jobs for which they are highly qualified because they have been considered societal misfit. Though few disabled person are employed in white-collar jobs, entrepreneurship and becoming visible in fields hitherto considered a no go area. Disabled people are stereotyped, considered unemployable and regarded almost as beggars and destitute. Disabled people are totally engrossed in the struggle to survive, devising ingenious frameworks for stretching limited personal finance to the utmost due basically to bottlenecks in accessing financial services in conventional financial system.

The dichotomies in financial services accessibility have enormous economic implications. The World Bank estimated the **global GDP loss due to financial exclusion of PLWDs to be between \$1.71 trillion to \$2.23 trillion annually**. Between 12% and 20% of the populations of developing countries were thought to be non-productive due to disability (Banque, 2007). The economic disparities are largely the result of exclusion and stigmatization; of what Fraser (2007) calls “misrecognition”.

The aforementioned underscores the need for a bee-hive of empirical investigation to highlight the financial inclusion experience of PLWDs and forge a radical transformation of the financial system for meaningful social existence. Quite surprisingly, country specific examination of the geographical characteristics and realities of PLWDs in accessing financial services remains in its infancy. CBN (2015) aptly posits that due to dearth of market data on the demographic composition and the level of financial inclusion of this vulnerable segment of the Nigerian society, financial inclusion initiatives for PLWDs have been largely undeveloped.

Available literature reviews are usually on aggregate analysis of financial inclusion and PLWDs. To the best of the researcher's knowledge none has empirically examined financial inclusion and PLWDs using a disaggregated analysis. In contrasts, to previous work, this paper disaggregates the level of financial inclusion into six components (in-branch banking, internet banking, mobile banking, automated teller machines, telephone banking services and the Nigerian currency notes) and empirically verifies the significant difference of financial inclusion for PLWDs across the six geopolitical zones. This would aid policy makers in developing appropriate programs, identify vulnerable geopolitical regions amenable to policy intervention, decide which evidence-based interventions to select (i.e. an empirical based solution), and expose important trends in behavior

and achievement where aggregate data are masking discrepancies. This identified gap in the dearth of available literature review is a motivating factor for conducting this research. The rest of this paper is structured as follows. Section 2 provides the review of conceptual issues and related empirical literature, while Section 3 deals with the study methodology. The findings of the study and discussion are presented in Section 4, while Section 5 provides the conclusion and proffered recommendations.

2.1 Conceptual issues

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost (Rangarajan, 2008). Financial inclusion simply put, means bringing those who are currently not enjoying financial services such as savings, credit, payment, pensions, insurance, remittances amongst others into the financial system and by so doing, access and use such services for economic /other activities that better their lots. Financial inclusion is ensuring that everyone has access to appropriate financial services, enabling them to manage their money, plan for the future, cope with financial pressures and deal effectively with financial distress (Tower Hamlets, 2013). For MetLife Foundation (MLF), financial inclusion means that households and businesses have convenient access to a full suite of quality, affordable financial services, delivered by trustworthy providers who treat customers with respect. When used effectively, these services enhance financial well-being, enabling more people to manage life's risks, seize its opportunities and pursue their dreams. These services allow improved management of incomes and assets, ultimately contributing to greater self-sufficiency and financial security."

In hindsight, financial exclusion is a "condition of life" so constrained by limitations to access to financial services as to be beneath any reasonable definition of financial services accessibility. Financial inclusion transcends the provision of financial services to the excluded. It encompasses the integration of the vulnerable in the societies to the mainstream of financial services accessibility. Financial exclusion is a global 'wicked problem' (Demirguc-Kunt, Asli; Klapper, Leora; Singer, Dorothe; Van Oudheusden, Peter, 2015). This connotes that the problematique is multi-systemic, dynamic and multi-level. While financial exclusion may be mitigated by various means, they typically defy a single solution.

Understandably, a growing literature exists on the relevance of integrating the vulnerable to the mainstream economy through financial inclusion

(Evans, 2016; Evans and Adeoye, 2016; Adeola and Evans, 2017; Evans and Lawanson, 2017, Fadun, 2014, See also Ibor, Offiong and Mendie, 2017). Financial inclusion of PWLDs is of particular interest to policy maker because of the way in which it juxtaposes two basic and powerful analogies of *injustice*: first, the treatment of some people as moral, social, or political inferiors on the basis of irrelevant characteristics; second, the creation, perpetuation, or simple failure to correct disparities between individuals in income, wealth, health, and other aspects of economic well-being on the basis of irrelevant discriminative factors.

The disability rights movement has long complained that the perspectives of people with disabilities are too often ignored or discounted. The slogan that served as the title for James Charlton's 1998 book, *Nothing About Us Without Us* (Charlton, 1998; Stone, 1997) has often been invoked to demand the inclusion of people with disabilities in policy making. Financial inclusion remains an integral category in understanding the predicaments facing disabled people in issues of politics and political participation, education, employment, environment, health, religion, cultural beliefs and values. However, the position of disabled persons within the financial system in Nigeria is insecure. In the view of Ogunlade, Olaore, Anyaele and Counts-Spriggs (2015), persons with mobility difficulties, who are dependent upon wheelchairs, crutches and other means of mobility assistance, struggle to access banking halls to secure service. The lack of elevators/lifts and communication technologies systematically placed in all branches, further bar the mainstreaming of persons with disabilities who desires access to in-branch banking services.

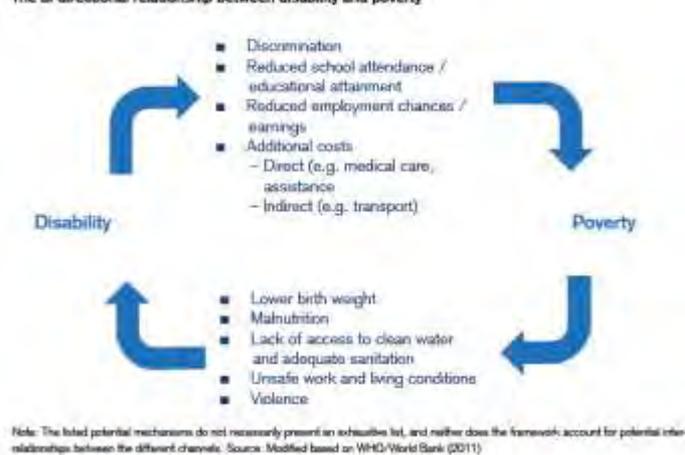
Fig 1.



It is fascinating that financial exclusion still predominate the factors that constantly enshrine the vicious cycle of poverty in PLWDs. At the same time, living in poverty exposes people to a number of conditions that increase the chances for people to develop a disability, e.g. via the risk of malnutrition or infectious diseases, greater exposure to violence, lack of access to safe water and sanitation infrastructure (Emerson et al 2006, Peters et al. 2008).

Fig 2.

The bi-directional relationship between disability and poverty



Financial inclusion remains a policy tool for alleviating poverty and redistributing income, particularly for those people living with disabilities. Access to financial services enables PLWDs to expand consumption, develop resilience to disruptive shocks, manage risks and invest in durable goods, health and education.

2.2 Financial inclusion and People Living with Disabilities: A Philosophical perspective

Philosophy as a rational examination of ideas, investigates not only the bases of our personal lives but also our interactions with one another. In concord with the socialist philosophers like Aristotle, man is a social animal; he interacts not only with himself but most especially with others. In this interaction lies the birthplace of society.

It is the task of philosophy to investigate and delineate those ideas upon which society hinges on. Society is segmented into groups and classes and the smooth interaction between these groups bring about harmony in general. Philosophy aims to achieve this by postulating different theories that attempt to capture the whole of experience and reality. With the copious use of notions such as objectivity and rationality, philosophy presupposes how best experience is to be captured. Be it in metaphysics, ethics, epistemology,

Philosophy attempts to proffer a theory of everything that captures all subjects and objects, but how

successful this has been is a matter of debate among scholars of minority groups studies like feminism and philosophy of disability. For them, the history and methods of philosophy, and by extension, the world, is littered with ableist assumptions which assume a standard for everybody, leaving no room for difference. Ableism could be inferred in such phrases like "Beauty is the eye of the beholder", "the blind leading the blind", to list but a few. This lack of appreciation for variation, further fuels discrimination and oppression of minority groups. Every society has its philosophy, some underlying assumptions, so also every social institutions; it is in their philosophy, one can find their underlying ontology.

Ontology is the science or study of being and whatever exists in the universe. It is the backbone of not only philosophical doctrines but also of other doctrines in diverse disciplines such as Accounting, politics and religion. But there is another definition of ontology that we would accept as a working definition and this is the understanding of ontology as the philosophical idea or basis of what it means to be human. This definition is important, for it is a man's ontology, what he believes is real or not, that forms the heart of his worldview.

The consequences of such a definition for any conception of social justice, is that a theory of justice is often postulated to delineate whom a given society deems a member. Such a theory of justice would be concerned with questions such as, what should be the endgame of society. Is it the belief in equality, or the pursuit of some intrinsic value, like, like the Americans would say, the pursuit of happiness? Since we all are members of a given society, what should constitute a fair and balance social arrangement?

Most theories of society proceed from an ableist foundation or starting point. And this revolves round the idea that all men are equal (a notion of equality) and ii. Everyone must have something tangible to contribute. Society is seen as a gathering of equal and like minds, a sort of trade by barter, and anyone coming to the party empty handed is simply not welcomed. It is upon this selfish conception of society that almost all our social institutions are founded upon. If Hobbes is to be believed before the advent of society when man dwell in a state of nature, life was short, nasty and brutish and to escape the ephemeral nature of such mundane living, where might is right, the weak and the needy came together to bestow upon the leviathan their rights and powers, they made him king over the commonwealth, he in turn would guarantee them their life and properties. In such a crude conception of society, weakness is something that is frowned upon.

Thus, the proper metric/measure of justice for social theories was either the protection of life and property, or the distribution of the basic structures that would underpin society. John Locke had one chief task, to defend the property rights of the individual, but it was in John Rawls, we find a conception most akin to the current social institutions we practice today.¹ For Rawls, it is the task of social justice to delineate the idea of primary goods, that any rational person, no matter the climate, or inclination, would choose, and such goods include liberty, rationality, mobility, equality of income, self-respect, dignity and job opportunities.

The main thrust and task for social justice, for Rawls, is the distribution of such primary goods. With his difference principle, Rawls attempted to give a fair fighting chance to the have-nots or the worst off, by offering that the state, in a form of affirmative action, provide for poor, the enabling atmosphere to compete favorably with their peers, by giving them a head start. But this supposed olive branch sprout short, for in his great and noble theory he forgot about one important minority group, those living with disability! Recent works by Amartya Sen² and Martha Nussbaum, the capabilities approach, attempts to make visible a minority group that has been invisible to society for so long.

2.2.1 The Capabilities Approach of Amartya Sen

According to the capability approach to disability, we must rethink disability not merely in terms of the individual and impairment, whereby we see impairment as a personal tragedy or as individual limitation, but also as the "opportunity lost" as specified by a set of policies that limits the individual living with disability, in expanding his/her choice. "This approach stresses the interplay between characteristics of the individual and the social groups that he/she belongs to, as well as the institutional factors that may influence or even hinder his/her choice. Outcomes are thus measured in terms of expanding of people's choices and freedom."³

There are two key ingredients in the capability theory of Sen; capability and functioning. For Sen, functioning is the existential state of the person as regards indices such as literacy, health mobility, and in the case at hand, we could add financial inclusion. Capacity refers to real freedoms or opportunities to

achieve such functionings. The present financial situation in Nigeria, regarding those living with disabilities, presupposes that the system is unjust, for persons living with disabilities are stranded in an isle of disadvantage.

It is the goal and focus of any rational society, before we can utter that that society is just, is that every one of its members regardless of ability or lack of, is included in the varied activities of the larger group. It is our aim to rectify any perceived inequalities in the financial system by highlighting areas where those living with disabilities are short changed. Vehmas and Watson have argued that disadvantage could take three dimensions that may not be related to each other; internal resources, external resources and social structures.⁴ The problem of financial exclusion falls herein, and is a form of discrimination cum stigmatization of this select group.

2.2.2 A History of Change

The definition of the terminology disability as an area of academic interest is quite a burgeoning intellectual inquiry which has undergone varied lexical construct in recent time. The usage of the term disabilities is increasingly considered derogatory. Scholars in the field of disability studies are attempting to change the narratives of disability. To appreciate what disability is, it is important to be aware of the different interpretations proposed by different models. How societies perceive disability has a very strong impact on the type of response that is provided on disability issues, and on the way people with disabilities are viewed. Usually, disability is seen from various perspectives, chief of which is the moral model and the medical model. In the moral model of disability, disability arises as result of sin and punishment from a higher being.⁵ The medical model views disability as a defect or illness and advocates that society must do all in its power to curb/cure such.⁶ The medical model views disability as a problem of the individual directly caused by a disease, an injury or other health conditions, and that requires prevention interventions or medical care in the form of treatment and rehabilitation (Johnstone, 1998). In the aforementioned models of disability, disability is seen as a defect, character flaw, weakness in character and people living with disability are seen as not having much to offer to society.⁷ Disability is considered an individual

¹ John Rawls. 2009. *A Theory of Justice*. Harvard University Press, London

² Amartya Sen. 1999. *Development as Freedom*. New York: Knopf

³ PARUL Bakhshi, Jean Francois tRAni. *THE cApAbILITY ApproaCH TO uNderstanding tRDisability: Increasing Comparability, Defining Efficient Programs*. Retrieved October 2 2018, from www.ucl.ac.uk. P.5

⁴ Simo Vehmas, Nick Watson. 2014. *Moral Wrongs, Disadvantages and Disability: a Critique of Critical Disability Studies*. *Disability and Society*. 29.4. p.645

⁵ Marno Reetief, Rantoo Letsosa, 2018. *Models of Disability. A Brief Overview*, *Theological Studies* 74.1

⁶ Michael Oliver, 1996. *Understanding Disability, from Theory to Practice*. New York: MacMillan. 32

⁷ Muireann Quigley, John Harris, 2010. *To fail to Enhance is to disable*, in *Philosophical Reflections on Disability*, Christopher Ralston, John Ho (eds) London; Springer. 123

problem to be addressed only from a medical or charitable viewpoint. The medical model seeks medical/rehabilitation systems alone and special services to 'repair the broken' or 'restore normal functioning'. The individual with impairment is seen as a problem to be solved and responsibility for disability lies with the person who must be 'fixed'. This view equates disability with impairment, and "within this paradigm social exclusion is seen essentially as the result of limitations imposed by 'disabilities (Bill, 2004).

This stigmatization and discrimination has led some scholars in disability studies to postulate a second model, which is known as the social model of disability. The "medical model" of disability gave rise to the rather opposing view that attributed disability entirely to the social environment ("the social model"), which, as opposed to medical interventions, saw the solution primarily in social change (Shakespeare 2006). Disability is not considered a characteristic of the person but as the result of interaction between the person and his/her environment. Reducing situations of disability therefore implies action on both personal and environmental factors. Disability is thus a result of how society is organized. According to this formulation, disability is about discrimination and social exclusion. This model implicitly recognizes that impairment is part of life and calls for different responses and priorities; while acknowledging and including the necessary medical interventions, the focus is placed on the removal of disabling barriers that prevent the full participation of persons with disabilities and make it impossible for them to take control of their own lives. According to this model, there is a firm dichotomy between an illness and disability. Disability for them is not synonymous with impairment, rather it is the social inequalities which arises from the imbalance in social institutions, based on the ableist ontology for normalcy, which bring about oppression, discrimination and stigmatization of the impairment.⁸ Yes, one could suffer from frailties but it is prevailing social institutions that bring about stigmatization and oppression. It is society's discrimination based on any medical condition which brings about disability.

Most social institutions are guilty of this bias, persons living with disabilities are institutionally written off, bank applications and structures are not designed with them in mind, it is as if they do not exist, hence some scholars do refer to persons living with disability as the invisible people. It is not that society does not see them, society does, but society refuses to acknowledge or notice them. It proposes an interpretation that is radically different by asserting

that persons with disabilities are disadvantaged not because of their individual characteristics but as a result of limitations imposed on them by environmental and external barriers. Thus, discrimination against the impairment has to be remedied not only in social and banking policies but also in the ontology of every member of society. Disability is therefore needs to be inscribed more broadly within multi-sector dynamics and needs to be addressed by all development sectors (education, financial, employment, health, social protection and others) with a cross-cutting approach. Disability is relevant to all development stakeholders acting at international, national and/or local levels.

One of the ways we can achieved this, is to ask ourselves, what should be the basis for the emancipation of persons living with disability? Is it pity, charity, human dignity, rational or human worth? We must also ask ourselves, what does it mean to be human? What ought to be our conception of humanity? For some scholars, it is frailty, since as they argue nobody is permanently abled; we all will be non-abled or disabled whether now or later. These questions are pertinent for a society is only judged as civilized based on the manner it treats its vulnerable and it's susceptible. To be civilized is to be sensitive to the plight of the minority groups within our subgroup, and persons living with disabilities are a perfect metaphor for such marginalization. We could go beyond the Eurocentric conception of disability to an afro-centered outlook, which clamour for the rights of every member regardless of infirmity or impairment. We ought to see the impaired, not as burdens that society should systematically ignore or phase out; rather we should perceive them as differently abled; as persons in possession of a different sort of abilities, gifted in diverse ways, disadvantaged people, people with special needs, Thisabilities, differently abled people and disabled people.. We have to shun the ableist assumptions and pretensions of society as pertaining to the definition of normalcy or ability. Decolonization of our mind, reconfiguration of our mindset, reorientation of the group mind as it was in Africa's ancient past, is the key to such progressive thinking.⁹ In the traditional African society, persons living with disabilities were bona fide members of society, perceived with different abilities and as such, assigned to roles that made good use of their peculiarities. Having a minority body does not in any way reduce one's humanity, rather it attenuates it. Justice is only social and just, when every member of society, from the great to the least, persons with different skills and varied abilities are all catered for in

⁸Michael Schillmeier, 2010. *Rethinking Disability; Bodies, Senses and Things*, New York; Routledge. 2

⁹Paul Ajuwon, 2018. *Disabilities and Disability Services in Nigeria: Past, Present and Future*. In *The Routledge History of Disability*, Roy Hanes, Ivan Brown, Nancy Hansen (eds) New York: Routledge. 134

one holistic scheme. Plato in his conception of the ideal state, define justice as playing one's role and doing it well, in the light of this, for our society to be just, we have to acknowledge the major and minute differences between individual members and groups within such social framework. It is not enough to put in place a social welfare scheme but rather persons living with disability should be empowered to live the quality of life they so deem fit. Those living with impairment should be designated roles that they should play in the society. This should be the inclusive model any rational society ought to pursue. The social structures and fabric of society should be designed in such and such a way to accommodate even those with impairments. Financial institutions, Schools, religious places and other public building; public architecture should reflect our acceptance of the difference of the other. Beyond these, a new permeating ontology; one which see those living with impairments, not as societal liability but as equitable partners of progress in the quest for a just and sane society, should be encouraged. It is only when we accept the humanity of the impaired can our own humanity blossom. The summation of all we have said is as follows; we have to rethink the underlying ontology behind our seeming innocuous actions, why do we act the way we do, sometimes in slow motion of epistemic ignorance, towards those living with disability? Why do we exclude them in our social policies as though, they do not exist? Like we have hinted, this has a lot to do with our accepted notion of personhood. Such notion need not be consciously reasoned or thought out; it is learned, handed down to us by society. We are conditioned by how society already treats or ignores disability. If for example, one subscribes to some notion of materialism, that man is simply nothing but a product or by-product of matter, there are drastic consequences. The implication is that someone living with disability appears therefore, as somewhat not-human. But let us ask ourselves; are we a sum total, a mere aggregate of physical parts? Does the soul, spirit, consciousness, life principle, chi, call-it-whatever-you-want, have a huge role to play, in deciding our humanity? Or simply put in another form, do we derive our humanity from our body mass or unit of consciousness? Until, the pre-existing ontology changes, even though the social policies change, society's progress towards genuine civilization would be nothing more than paper over cracks, cosmetics over scars.

2.3 Financial inclusion and people living with Disabilities: The CBN narrative

The CBN is Repositioning the entire spectrum of the financial system for relevance in the 21st Century. Financial inclusion drive targeted at the vulnerable in

the economy remains a key to consolidating and building the financial system to achieving this lofty height. This is germane, considering that exchange rate and price stability, interest rate for management, macroeconomic coordination, vigorous pursuit of sustainable development, improved payments system, financial sector diversification and regulatory reforms are intrinsically tied with financial inclusion. Financial inclusion ultimately create better environment for the Central Bank of Nigeria to pursue the aforementioned objectives. Against this backdrop, CBN has initiated a number of policies/guidelines and initiative with special consideration for the peculiarity of PWLDs as enunciated below:

* Implementing the Nigerian Sustainable Banking Principles

Principle 5 Financial Inclusion: The principle states unequivocally that a Bank should take a practical approach to financial inclusion that is appropriate for its Business Activities through

Improving access to Bank facilities and services:

A Bank should seek to provide opportunity for increased access to its products and services through platforms such as cash centres, e-branches, and mobile money and increasing efficiency to serve more clients. A Bank should consider making its physical locations and facilities accessible to physically challenged persons.

* ATM GUIDELINES

- 2% of ATMs deployed by each acquirer shall have tactile graphic symbol for the use of visually impaired customers. Locations of such ATMs are to be visibly publicized on their corporate website at the minimum failure to comply attract a fine of N50,000.00 per week.

* Micro, Small and Medium Enterprises Development Fund (MSMEDF)

As part of its developmental role and mandate of promoting a sound financial system, the Central Bank of Nigeria (CBN) launched the Micro, Small and Medium Enterprises Development Fund (MSMEDF) on August 15, 2013. This was in recognition of the significant contributions of the Micro, Small and Medium Enterprises (MSME) sub-sector to the economy. The Fund prescribes 50:50 ratio for on-lending to micro enterprises and SMEs respectively by Participating Financial Institutions (PFIs). It is intended that 2 percent of the wholesale component of the Fund should be committed to economically active

persons living with disabilities (PLWD) in order to address their peculiar financial exclusion challenges.

* Currency Identification for the visually impaired

A special symbol on the left hand side provides a distinctive feel for the blind to assist in recognizing the denominations as enunciated below:

- The N5 note bears the portrait of Alhaji Tafawa Balewa and also has a Diamond symbol for distinctive feel to assist the visually impaired.
- The N10 note bears the portrait of Alvan Ikoku and a square symbol for distinctive feel to assist the visually impaired.
- The N20 note bears the portrait of Late General Murtala Mohammed, circle symbol for distinctive feel to assist the visually impaired.
- The N50 note bears the portrait of the people of the three major ethnic groups in Nigeria, a light blue metallic stripe and a triangle symbol for distinctive feel to assist the visually impaired.
- The N100 note bears Chief Obafemi Awolowo portrait on the front with raised embossed line to assist visually impaired persons in recognizing the face value
- There are marks of various numbers on each banknote from the N200- N5000 for the visually impaired to detect and distinguish:

3.0 Research Methodology

The descriptive survey research design was used in the study. The population covers all the 4.8million people living with one form of disability or the other in the six geo-political zones of Nigeria namely: North-West, South-East, South-South, North-Central, North-East and the South-West. These six geopolitical zones encompass the 36 states and the Federal Capital Territory (FCT). Only three states per geopolitical zone were selected at random using the lottery method. This therefore gave a total of eighteen (18) states covered in the study (i.e. 3 states multiplied by 6 geopolitical zones to get 18 states). The population of 4.8million Persons living with Disabilities (PLWDs) as earlier stated was based on the National Baseline Survey on Persons with Disabilities (2017). To determine the sample size, the purposive sampling technique was employed to choose a total of 2000 people living with disability. The total percentage across the six zones totals 19.9%. Hence, a

proportional percentage of the distribution of PLWD across the six geopolitical zones was used. This is shown in Table 1.

Table 1: Sample Distribution of People living with Disability (PLWD) across the six geopolitical zones of Nigeria

s/n	Geo political zones	Percentage of PLWD in Geo political zone	Proportional sample of PLWD drawn
1	North-West Zone (Jigawa, Kaduna & Kano State)	5.0 percent	502
2	South-East Zone (Abia, Anambra & Ebonyi State)	4.5 percent	453
3	South-South Zone (Bayelsa, Cross River & Akwa-Ibom) State	3.3 percent	332
4	North-Central Zone (Benue, Kogi & Kwara State)	2.6 percent	261
5	North-East Zone (Adamawa, Bauchi & Borno State)	2.4 percent	241
6	South-West Zone (Lagos, Oyo & Osun State)	2.1 percent	211
	Total	19.9percent	2000PLWD

Note: Names of the sampled states are indicated in bracket below each of the geopolitical zones while the proportional sample is obtained by expressing the percentage of PLWD in each geopolitical zone in the nearest one hundred.

The instrument used to collect data was titled: Financial Inclusion of People with Disability Survey Inventory (FIPWIDS). FIPWIDS was developed by the researchers from the G3ICT Publication and Report (2015). The report stated that financial inclusion for persons with disabilities covers access to six (6) major areas namely: in-branch banking services, internet banking services, mobile banking services, telephone banking services, Automated Teller Machine (ATM) services and currency note/coin management. On each of the six financial inclusion indicators, 5-13 items were raised which gave a total of 48-items. The 48-items were rated on a 3-point response option of: Very True (3), True (2), and Not True (1).

In determining the construct validity of the instrument the Principal Component Analysis (PCA) was conducted on the original 48-items with orthogonal varimax rotation. PCA is used when the primary purpose is to identify and compute satisfaction scores for the factors underlying financial inclusion. Field (2009) explained that PCA works in a way that is similar to a multivariate analysis of variance test by looking at relationship between variables and calculating the variants of the matrix to determine eigenvalues, the elements that provide the loadings of a particular variable on a factor. Hence, the PCA was used to uncover the underlying structure of variables or indicators measuring the financial inclusion of PLWDs. The varimax orthogonal rotation

was selected because it is a good general approach that simplifies the interpretation of factors (Field, 2009).

The result of the PCA showed that Kaiser-Meyer-Olkin Measure (KMO) of sampling adequacy was 0.919 while the chi-square coefficient of the Bartlett's Test of Sphericity (108384.620) was statistically significant ($p < 0.05$) (See Table 2). This shows that the dataset is large enough or adequate for component factoring. An initial analysis was run to obtain eigenvalues for each component in the data. After analysis, nine (9) components had eigenvalues over Kaiser's criterion of 1. The scree plot, however, supported the retention of the nine components that in combination explained 76.9% of the variance. Hence, all the nine components were retained. Four items were removed (items 28, 39, 42 and 16) in the model. Table 2 shows the factor loadings of the new nine factors and 44-item scale after rotation.

The items that clustered on Factor 1 (F1, items 5, 41, 29, 17, 8, 32, 45, 20, 44, 9, 21, 33 and 4) informed naming Factor 1 "Financial service access". Factor 2 (F2, items 23, 24, 22, 47, 46, 48, 18, 40 and 15) was renamed Mobile banking and Currency distinction; Factor 3 (F3, items 7, 31, 19 and 43) was renamed

Financial service communication; Factor 4 (F4, items 35, 37, 36, 38 and 34) was renamed "ATM Design and Operation"; Factor 5 (F5, items, 30, 6, 27 and 3) was renamed "Telephone and support services"; Factor 6 (F6 - items 11, 10, and 12) was renamed "Assistive Technology Access"; Factor 7 (F7, items 13 and 14) was renamed "Online Banking Access"; Factor 8 (F8, items 1 and 2) was renamed "in-branch banking access" while Factor 9 (F9, items 25 and 26) was renamed "Media service access".

Analysis of internal consistency reliability using Cronbach's alpha yield the following: Factor 1 - Financial service access ($\alpha = .970$); Factor 2 - Mobile banking and Currency distinction ($\alpha = .916$); Factor 3 - Financial service communication ($\alpha = .885$); Factor 4 - ATM Design and Operation ($\alpha = .887$); Factor 5 - Telephone and support services ($\alpha = .834$); Factor 6 - Assistive Technology Access ($\alpha = .823$); Factor 7 - Online Banking Access ($\alpha = .796$); Factor 8 - In-branch banking access ($\alpha = .582$); and Factor 9 - Media service access ($\alpha = .681$). The summary result of the Principal Component Analysis (PCA) is provided in Table 2.

Table 2: Summary result of the Principal Component Analysis

Items	Components											Communalities
	X	S.D	F1	F2	F3	F4	F5	F6	F7	F8	F9	
Item 5	1.44	.611	.907									.914
Item 41	1.37	.594	.887									.899
Item 29	1.42	.602	.886									.868
Item 17	1.35	.586	.863									.870
Item 8	1.82	.969	.850									.889
Item 32	1.78	.961	.826									.841
Item 45	1.68	.846	.821									.874
Item 20	1.67	.929	.820									.844
Item 44	1.78	.960	.818									.845
Item 9	1.79	.880	.814									.865
Item 21	1.67	.843	.814									.873
Item 33	1.77	.879	.805									.849

Item 4	2.03	.683	.521										.808
Item 23	2.15	.949		.824									.803
Item 24	2.06	.973		.806									.822
Item 22	2.10	.874		.796									.769
Item 47	2.21	.934		.723									.783
Item 46	2.07	.877		.660									.616
Item 48	2.03	.976		.633									.713
Item 18	2.11	.923		.561									.723
Item 40	1.82	.702		.514									.745
Item 15	1.78	.820		.503									.765
Item 7	2.03	.767			.822								.757
Item 31	2.00	.779			.791								.750
Item 19	1.99	.772			.750								.817
Item 43	1.95	.783			.718								.800
Item 35	2.03	.964				.824							.820
Item 37	1.99	.942				.807							.781
Item 36	1.96	.977				.764							.775
Item 38	1.85	.875				.745							.725
Item 34	1.99	.901				.705							.667
Item 30	2.13	.927					.678						.671
Item 6	2.16	.920					.649						.713
Item 27	1.83	.819					.623						.729
Item 3	1.94	.814					.600						.859
Item 11	1.91	.965						.807					.760
Item 10	1.91	.903						.785					.698
Item 12	1.93	.979						.692					.736
Item 14	1.72	.868							.801				.765
Item 13	1.91	.947							.760				.814

Item 1	1.80	.937								.789		.676
Item 2	1.85	.892								.722		.654
Item 25	2.29	.889									.561	.659
Item 26	2.10	.865									.526	.616
% of variance (Extraction)			37.778	10.772	7.013	5.005	4.860	3.626	3.011	2.549	2.313	
% of variance (Rotation)			23.033	13.570	8.003	7.987	6.830	5.888	4.485	3.783	3.349	
Cronbach (a)			.970	.916	.885	.887	.834	.823	.796	.582	.681	
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy = .919												
Bartlett's Test of Sphericity = 108384.620 df = 1128 P = .000												
% of variance = 76.928												

Source: Researchers' Analysis

The researchers administered and retrieved copies of the questionnaire to disabled persons through delegates sent to target states and representatives from the Joint National Association of Persons with Disability (JONAPWD) from each of the sampled state. Questionnaires were distributed through this body (JONAPWD) because of the following reasons. First, JONAPWD was used because the body has control of data on the number of persons living with disability in each state across Nigeria. Second, the body has access contact information of persons with disability and can therefore disseminate information to various categories of persons living with disability irrespective of their sex, religion, age, social class and deformity. Lastly, due to various forms of impairment such as vision, hearing and speech, the JONAPWD was considered because they have persons who could communicate proficiently in sign language and local dialect of PLWDs.

Ethical principles of respect for human dignity and justice highlighted in Folayan, Haire, Harrison, Odetoyingbo, Fatusi and Brown (2014) was implored in this study. According to them, informed consent is a fundamental requirement in research participation. It is obtained through a dialogue that respects the individuality of each prospective participant and allows ample opportunity for the prospective participant to ask questions. They added that informed consent must be voluntarily obtained and devoid of undue inducement and coercion. This is central in any research on human sexuality and sex-related behaviour because it protects the principle of 'respect for persons' (Folayan *et al*, 2014). Consequently, the researcher made informed written consent on the questionnaire to prospective participants about the expected risk such as possible negative emotions due to the sensitivity of questions, estimated time to complete the questionnaire, the

right to decline or withdraw from participating in the study. Consent was obtained from each respondent. Therefore, anonymity and verbal consent from respondents was accepted. During questionnaire collation, only 1987 copies of the questionnaire were completely filled and found to be useful for the analysis. This gave a total of 99.4% use rate.

Data were analyzed using descriptive and influential statistics. Research questions were analyzed using mean (\bar{X}) and standard deviations (S.D). A mean score of 2.00 was used as the benchmark for determining level of financial inclusion for people living with disability. The benchmark mean score was obtained by adding up the three (3) point scales (Very True -3, True -2, Not True -1) and dividing the sum (6) by the total number of scales (3) to give 2.00. Hence, any item/overall mean score of 2.00 or higher was adjudged a case for high financial accessibility or inclusion while any item/overall mean score that was less was taken otherwise. The hypotheses were tested with the analysis of variance (ANOVA) and Sidak multiple mean comparison Post Hoc test at 0.05 level of significance. The Statistical Package for Social Sciences (SPSS© version 23).

4.0 Analysis of Results

The results of the analysis are presented below:

Research Question 1: What is the level of financial inclusion for persons with disability on various financial services in Nigeria?

Table 3: Analysis on level of financial inclusion for persons with disability to access financial services

s/n	Items	n = 1987		
		\bar{X}	S.D	Remark
Financial service access ($\alpha = .970$)				
5	token numbers are made available to customers through visual and audio means	1.44	.611	LA
41	braille signage is available to access ATM components and keys on the keypad	1.37	.594	LA
29	authentication policies are available to accommodate the need for an interpreter or personal aid to help conduct the transaction	1.42	.602	LA
17	banking documentation are available in digital formats (e.g. HTML or RTF), alternative formats (e.g. audio, large size fonts, accessible e-text or DAISY formats) as well as printable in braille	1.35	.586	LA
8	there is at least one sign language interpreter employed for customers with hearing impairment	1.82	.969	LA
32	ATM keypad, touch screen and card insertion slots are at suitable heights and reach	1.78	.961	LA
45	there are raised-texture tactile features that make currency note easily distinguished from each other by merely feeling them	1.68	.846	LA
20	sufficient time is given to allow users with disabilities enter One Time Passwords (OTPs) or other authentication codes sent through SMS or email	1.67	.929	LA
44	notes of different denominations are easily distinguishable from each other by colour	1.78	.960	LA
9	usability is not compromised by accessibility and vice versa	1.79	.880	LA
21	all mobile applications and websites are tested for accessibility on different mobile platforms	1.67	.843	LA
33	the ATM is physically accessible for users including those on crutches and wheelchairs who may wish to carry out their transaction without a third party	1.77	.879	LA
4	braille lettering, large print and tactile signs are provided as signage within and outside this bank	2.03*	.683	HA
Overall mean on Factor 1 ($\bar{X} = 1.66$)				
Mobile banking and Currency distinction ($\alpha = .916$)				
23	error and other messages are provided through auditory and non-auditory means	2.15*	.949	HA
24	video conferencing services are allowed for customers to interact with customer service officials through text captioning	2.06*	.973	HA
22	short text messaging tools for real-time communications are provided for customers with hearing impairments	2.10*	.874	HA
47	the images on various denominations note are large enough for people with visual impairment or colour blindness	2.21*	.934	HA
46	the amount of different denominations are written in various national languages to avoid language barriers	2.07*	.877	HA
48	the lettering on each naira note is large enough for a person with any form of visual impairment to see	2.03*	.976	HA
18	error messages are provided in text and audio formats of my bank website	2.11*	.923	HA
40	audio output is available for all transactions and processes	1.82	.702	LA
15	audio instructions are provided to take one through the various steps that are involved in any transaction on your bank website	1.78	.820	LA

Factor 2 ($\bar{X} = 2.04$)**Financial service communication ($\alpha = .885$)**

7	devices that allow a customer and staff communicate via text to facilitate communication are provided for customers with hearing impairments	2.03*	.767	HA
31	the height and reach of ATMs are positioned within 15 and 48 inches such that it is appropriate for different customers, including those who use wheelchairs	2.00*	.779	HA
19	simple language and designs are used to enhance clarity of information on my bank website	1.99	.772	LA
43	notes of different denominations are easily distinguishable from each other by size	1.95	.783	LA

Factor 3 ($\bar{X} = 1.99$)**ATM Design and Operation ($\alpha = .887$)**

35	ATMs are equipped with both voice guidance systems	2.03*	.964	HA
37	users of the ATM can turn off the screen display to enjoy some privacy	1.99	.942	LA
36	there is a headphone jack added to the ATM in a manner that the audio is heard only by the user	1.96	.977	LA
38	ATM displays has high colour contrast to ensure screen information are legible for different customers including those with impaired vision	1.85	.875	LA
34	the ATM area has signage in tactile signs	1.99	.901	LA

Factor 4 ($\bar{X} = 1.95$)**Telephone and support services ($\alpha = .834$)**

30	short phone codes such as USSDs to enjoy quick banking services are regularly sent to customers in audio and video format	2.13*	.927	HA
6	documents are available in alternative formats such as Braille, plain or simple language, large print, and audio formats upon customer's request	2.16*	.920	HA
27	sufficient time is provided for customers with any form of disability to respond to automated queries such as entering an account number	1.83	.819	LA
3	there are lifts or elevators to take physically challenged customers upstairs for their bank transaction	1.94	.814	LA

Factor 5 ($\bar{X} = 2.01$)**Assistive Technology Access ($\alpha = .823$)**

11	users can turn on and off the music or animation, to enable them use assistive devices such as screen readers without any problems	1.91	.965	LA
10	independent login processes are available through assistive technology such as screen readers and voice recognition software	1.91	.903	LA
12	there is real time access to customer service representatives through instant chat or video relay services to enable real time sign language interpretation	1.93	.979	LA

Factor 6 ($\bar{X} = 1.92$)**Online Banking Access ($\alpha = .796$)**

14	large text instructions are provided to take one through the various steps that are involved in making online transactions	1.72	.868	LA
13	video instructions are provided to take one through the various steps that are involved in withdrawing or making online payments	1.91	.947	LA

Factor 7 ($\bar{X} = 1.82$)**In-branch banking access ($\alpha = .582$)**

1	all cash and teller counters within the banking halls are sufficiently low for easy customer access (including those on crutches or wheelchair)	1.80	.937	LA
---	---	------	------	----

2	there are automatic door openers to give access to those who may be on a wheel chair	1.85	.892	LA
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Factor 8 ($\bar{X} = 1.82$)

Media service access ($\alpha = .681$)

25	remote deposits of checks are accessible through the banking apps to take and upload a photo of their check	2.29*	.889	HA
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26	video relay services are available to facilitate telephone banking for consumers using sign language	2.10*	.865	HA
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Factor 9 ($\bar{X} = 1.82$)

Overall mean = 1.94

* Significant mean ($\bar{X} \geq 2.00$)

LA - Low access

HA - High access

Factor 1 - Financial service access

Factor 2 - Mobile banking & Currency distinction

Factor 3 - Financial service communication

Factor 4 - ATM Design and Operation

Factor 5 - Telephone and support services

Factor 6 - Assistive Technology Access

Factor 7 - Online Banking Access,

Factor 8 - In-branch banking access,

Factor 9 - Media service access

Result in Table 3 showed that respondents are financially included on items 4, 23, 24, 22, 47, 46, 48, 18, 7, 31, 35, 30, 6, 25 and 26 and were not financially included on items 5, 41, 29, 17, 8, 32, 45, 20, 44, 9, 21, 33, 40, 15, 19, 43, 37, 36, 38, 34, 27, 3, 11, 10, 12, 14, 13, 1 and 2 respectively. Result showed that all the items bordering on Financial Service Access (Factor 1) had an overall mean score of 1.66. Items on Mobile Banking and Currency Distinction (Factor 2) had an overall mean score of 2.04. Items on Financial Service Communication (Factor 3) had an overall mean score of 1.99. Items on ATM Design and Operation (Factor 4) had an overall mean score of 1.95. Items on Telephone and Support Services (Factor 5) had an overall mean score of 2.01. Items on Assistive Technology Access (Factor 6) had an overall mean score of 1.92. Items on Online Banking Access (Factor 7) had an overall mean score of 1.82. Items on In-branch banking access (Factor 8) had an overall mean score of 1.82 while items on Media service access (Factor 9) had an overall mean score of 2.19 respectively. Since the overall mean scores of on mobile banking and currency distinction ($X = 2.04$), telephone and Support Services ($X = 2.01$) and bank media service access ($X = 2.19$) are greater than the benchmark mean of 2.00 (i.e. $X = 2.04, 2.01$ and $2.09 > 2.00$). This indicates that the level of financial inclusion for persons with disability on mobile banking and currency distinction, telephone and support services and bank media service access is high but low on all other financial services (financial service access, financial service communication, ATM design and operation, assistive technology access, online banking access and in-branch banking access) in Nigeria. However, the overall mean score of 1.94 clearly shows that level of financial inclusion across the six zones in Nigeria was low ($\bar{X} = 1.94 < 2.00$).

Hypothesis

The hypothesis formulated and tested in the study is given below:

Ho: The level of financial inclusion for persons with disability on various financial services does not significantly differ by geopolitical zone in Nigeria.

Table 4: Summary result of ANOVA and Sidak Post-Hoc test Analysis on differences in the level of financial inclusion for persons with disability by geopolitical zones

	Sum of Squares	df	Mean Square	F-cal.	F-value
Between Groups	5.397	5	1.079	4.659*	.000
Within Groups	458.940	1981	.232		
Total	464.337	1986			

* F-cal. is significant at 0.05 level of significance

Dependent variable: Level of financial inclusion

Independent variable: Geopolitical zones (states)

Results in Table 4 showed that the F-value of 4.659 is statistically significant ($p < 0.05$). Therefore, the null hypothesis was rejected. This implies that there was a significant difference on the level of financial inclusion for persons with disability in the geopolitical zones of Nigeria. Determining the level of financial inclusion from one geopolitical zone to another is pertinent. Hence, a Post-Hoc test using Sidak was conducted on the omnibus test of variance (ANOVA) and this is shown in Table 5.

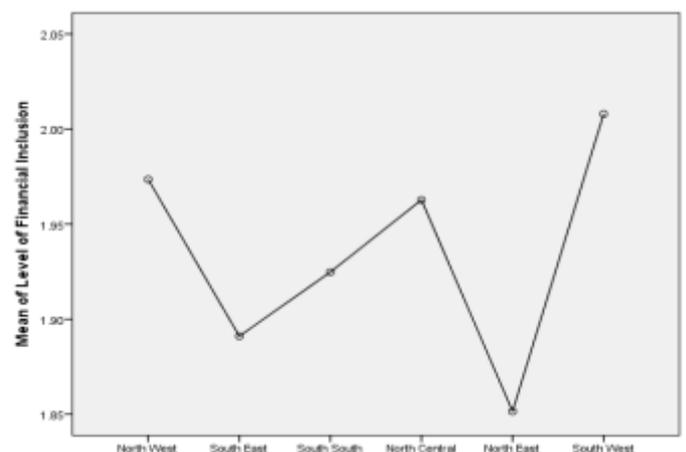
Table 5: Scheffe Post-Hoc Multiple comparison test of differences in Students

(I) State	(J) State	Mean Difference (I-J)	Std. Error	P-value
North West	South East	.082	.032	.237
	South South	.049	.037	.879
	North Central	.011	.040	1.000
	North East	.122*	.035	.035
	South West	-.034	.035	.966
South East	North West	-.082	.032	.237
	South South	-.034	.038	.977
	North Central	-.072	.041	.695
	North East	.040	.036	.946
	South West	-.117	.036	.067
South South	North West	-.049	.037	.879
	South East	.034	.038	.977
	North Central	-.038	.045	.982
	North East	.073	.041	.664
	South West	-.083	.041	.527
North Central	North West	-.011	.040	1.000
	South East	.072	.041	.695
	South South	.038	.045	.982
	North East	.111	.044	.270
	South West	-.045	.044	.958
North East	North West	-.122*	.035	.035
	South East	-.040	.036	.946
	South South	-.073	.041	.664
	North Central	-.111	.044	.270
	South West	-.157*	.040	.008
South West	North West	.034	.035	.966
	South East	.117	.036	.067
	South South	.083	.041	.527
	North Central	.045	.044	.958
	North East	.157*	.040	.008

Dependent Variable: Level of financial inclusion

The results in Table 5 showed that the mean difference on level of financial inclusion between North West and North Eastern Zone (-.122) and between South West and North Eastern Zone (.157) were all statistically significant ($p < 0.05$). This indicated that there was a significant difference on the level of financial inclusion of persons with disability in the geopolitical zones of Nigeria. The means for group in homogenous subset are presented in Figure 1. In ascending order, the mean plot showed that the homogenous mean on level of financial inclusion for the size geopolitical zones are: 1.85 for North East, 1.89 for South East, 1.92 for South-South Zone, 1.96 for North Central Zone, 1.97 for North West Zone and 2.01 for South West Zone. This showed that the South Western zone of Nigeria has the highest level of financial inclusion for persons with disability while the least level of financial inclusion for persons with disability North Eastern zone of Nigeria. This is clearly

shown in Figure 1.

**Figure 1:** Mean plot on level of financial inclusion in Nigeria by geopolitical zone

Source: SPSS output

5.0 Conclusion/Recommendation

The level of financial inclusion for persons with disability on mobile banking and currency distinction, telephone and support services and bank media service access is high but low on other financial services - financial service access, financial service communication, ATM design and operation, assistive technology access, online banking access and in-branch banking access in Nigeria. Based on findings, it is concluded that the least level of financial inclusion for persons with disability exist in the North East while the most financially inclusive region for persons with disability is the South-Eastern Nigeria. This provides ample empirical evidence on the geopolitical distribution of financial inclusion level of PLWDs in Nigeria, and hence would be useful for prime target group of financial inclusion efforts for the vulnerable especially PLWDs in Nigeria via the aforementioned tripartite-track approach to improving the participation of PLWDs in the entire spectrum of the financial system.

For level of financial inclusion to be enhanced, the following are recommended.

- * Banks should endeavour to install ATMs with braille signage, large fonts and high colour contrast to enable visually impaired persons use the ATM without involving a third party. To enhance this, ATM keypad, touch screen and card insertion slots at ATM terminals should be built with suitable flooring for the reach of

people on wheel chair, clutches and walking aids or guide canes.

- * In-branch banking should be encouraged by installing automatic security door openers to give access to those who may be on a wheel chair. In most deposit money banks, security door which allows access of not more than one person with a non-metallic object is commonly used. This door completely disallows access of persons who may be on fabricated wheel chair, walking aids or any other metallic objects.
- * Banking documentation should be readily available in alternative formats (e.g. audio, large size fonts, accessible e-text or DAISY formats) as well as printable in braille. The Central Bank of Nigeria (CBN) should also endeavour to make notes of different denominations easily distinguishable from each other by size, smell, colours and braille lettering.
- * The Central Bank of Nigeria needs to develop suitable financial inclusion strategy with focal emphasis on the peculiarities of the challenges faced by PLWDs in the banking industry in Nigeria. This would ensure PLWDs are not only fully integrated into the financial services sector, but are given opportunity to enjoy the full benefits of banking

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APPENDIX

SAMPLE COPY OF ORIGINAL QUESTIONNAIRE

Financial Inclusion of People with Disability Survey Inventory (FIPWIDSI)

(Kindly read this before turning overleaf)

Attached is a questionnaire designed to collect data on level of access to some financial services provided by banks within your locality. Hence, the content overleaf is quite sensitive, personal and could possibly arouse your emotions. IF YOU CONSENT TO FILL THIS QUESTIONNAIRE, you would be contributing greatly towards the attainment of our research goals by providing honest and sincere responses to items in the questionnaire attached. The information needed is strictly for research purpose and it shall be exclusively confidential. Hence, YOU DO NOT NEED TO WRITE YOUR NAME ON ANY PART OF THE QUESTIONNAIRE. Just answer all questions by putting a tick against the option representing your personal details or opinion.

Thanks in anticipation of your co-operation.

NOTE: This questionnaire is for only people living with one form of disability or another in Nigeria.

People living with one form of disability or another encompass individuals with: **Speech impairment, communication disorders, blindness, low vision or visually impairment, physical disabilities, autism, severe disabilities, multiple disabilities, deaf/blindness, reading disorder, cognitively or learning disability and hearing loss among others.**

SECTION A: Personal Information

State (Please specify): _____

Sex: Male () Female ()

Age: Below 25years () 25-30years () 31-35years ()
36-40years () Above 40years ()

Educational qualification: Kindly indicate the highest academic qualification you have attained currently

No formal education () Primary Education ()

Secondary education () Tertiary Education ()

Post-graduate education () Others ()

Income: Below N20,000 () N21,000–N40,000 () N41,000–N60,000 ()

N61,000–N80,000 () N81,000–N100,000 () Above N100,000 ()

Section B: Financial Inclusion indicators

Instruction: Please use the tick () as appropriate the information as it applies to the bank you currently bank with or work with

s/n	Items	Very True	True	Not True
	In-branch banking			
	<i>In my bank...</i>			
1.	all cash and teller counters within the banking halls are sufficiently low for easy customer access (including those on crutches or wheelchair)			
2.	there are automatic door openers to give access to those who may be on a wheel chair			
3.	there are lifts or elevators to take physically challenged customers upstairs for their bank transaction			
4.	braille lettering, large print and tactile signs are provided as signage within and outside this bank			
5.	token numbers are made available to customers through visual and audio means			
6.	documents are available in alternative formats such as Braille, plain or simple language, large print, and audio formats upon customer's request			
7.	devices that allow a customer and staff communicate via text to facilitate communication are provided for customers with hearing impairments			
8.	there is at least one sign language interpreter employed for customers with hearing impairment			
	Internet banking offers			
	<i>In the online banking app or website of my bank ...</i>			
9.	usability is not compromised by accessibility and vice versa			
10.	independent login processes are available through assistive technology such as screen readers and voice recognition software			
11.	users can turn on and off the music or animation, to enable them use assistive devices such as screen readers without any problems			
12.	there is real time access to customer service representatives through instant chat or video relay services to enable real time sign language interpretation			
13.	video instructions are provided to take one through the various steps that are involved in withdrawing or making online payments			
14.	large text instructions are provided to take one through the various steps that are involved in making online transactions			
15.	audio instructions are provided to take one through the various steps that are involved in any transaction on your bank website			
16.	a hotline is readily provided to assist customers in making use of internet banking services			
17.	banking documentation are available in digital formats (e.g HTML or RTF), alternative formats (e.g audio, large size fonts, accessible e-text or DAISY formats) as well as printable in braille			
18.	error messages are provided in text and audio formats of my bank website			
19.	simple language and designs are used to enhance clarity of information on my bank website			
20.	sufficient time is given to allow users with disabilities enter One Time Passwords (OTPs) or other authentication codes sent through SMS or email			
	Mobile banking offers			

	Considering the mobile banking services my bank...			
21.	all mobile applications and websites are tested for accessibility on different mobile platforms			
22.	short text messaging tools for real-time communications are provided for customers with hearing impairments			
23.	error and other messages are provided through auditory and non-auditory means			
24.	video conferencing services are allowed for customers to interact with customer service officials through text captioning			
25.	remote deposits of checks are accessible through the banking apps to take and upload a photo of their check			
	Telephone banking systems			
	The telephone banking services of my bank are such that...			
26.	video relay services are available to facilitate telephone banking for consumers using sign language			
27.	sufficient time is provided for customers with any form of disability to respond to automated queries such as entering an account number			
28.	telephone banking is combined with mobile banking services such as SMS to facilitate ease of access for the customers with disability			
29.	authentication policies are available to accommodate the need for an interpreter or personal aid to help conduct the transaction			
30.	short phone codes such as USSDs to enjoy quick banking services are regularly sent to customers in audio and video format			
	ATM design and operation			
	The design and operation of ATM service in my bank is such that...			
31.	the height and reach of ATMs are positioned within 15 and 48 inches such that it is appropriate for different customers, including those who use wheelchairs			
32.	ATM keypad, touch screen and card insertion slots are at suitable heights and reach			
33.	the ATM is physically accessible for users including those on crutches and wheelchairs who may wish to carry out their transaction without a third party			
34.	the ATM area has signage in tactile signs			
35.	ATMs are equipped with both voice guidance systems			
36.	there is a headphone jack added to the ATM in a manner that the audio is heard only by the user			
37.	users of the ATM can turn off the screen display to enjoy some privacy			
38.	ATM displays has high colour contrast to ensure screen information are legible for different customers including those with impaired vision			
39.	voice recognition is available to ATM users who are unable to use the tactile or touch screen menu			
40.	audio output is available for all transactions and processes			
41.	braille signage is available to access ATM components and keys on the keypad			
42.	error messages are provided in both visual and audio formats with clear articulation of the type of error or content of feedback			
	Currency			
	The Nigerian naira is such that ...			
43.	notes of different denominations are easily distinguishable from each other by size			
44.	notes of different denominations are easily distinguishable from each other by colour			
45.	there are raised-texture tactile features that make currency note easily			

	distinguished from each other by merely feeling them			
46.	the amount of different denominations are written in various national languages to avoid language barriers			
47.	the images on various denominations note are large enough for people with visual impairment or colour blindness			
48.	the lettering on each naira note is large enough for a person with any form of visual impairment to see			

APPENDIX

ANOVA

Level.of.Financial.Inclusion

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.397	5	1.079	4.659	.000
Within Groups	458.940	1981	.232		
Total	464.337	1986			

Multiple Comparisons

Dependent Variable: Level.of.Financial.Inclusion

Scheffe

(I) State	(J) State	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
North West	South East	.082	.032	.237	-.02	.19
	South South	.049	.037	.879	-.07	.17
	North Central	.011	.040	1.000	-.12	.14
	North East	.122*	.035	.035	.00	.24
	South West	-.034	.035	.966	-.15	.08
South East	North West	-.082	.032	.237	-.19	.02
	South South	-.034	.038	.977	-.16	.09
	North Central	-.072	.041	.695	-.21	.07
	North East	.040	.036	.946	-.08	.16
	South West	-.117	.036	.067	-.24	.00
South South	North West	-.049	.037	.879	-.17	.07
	South East	.034	.038	.977	-.09	.16
	North Central	-.038	.045	.982	-.19	.11
	North East	.073	.041	.664	-.06	.21
	South West	-.083	.041	.527	-.22	.05
North Central	North West	-.011	.040	1.000	-.14	.12
	South East	.072	.041	.695	-.07	.21
	South South	.038	.045	.982	-.11	.19
	North East	.111	.044	.270	-.04	.26
	South West	-.045	.044	.958	-.19	.10
North East	North West	-.122*	.035	.035	-.24	.00
	South East	-.040	.036	.946	-.16	.08
	South South	-.073	.041	.664	-.21	.06
	North Central	-.111	.044	.270	-.26	.04
	South West	-.157*	.040	.008	-.29	-.02
South West	North West	.034	.035	.966	-.08	.15
	South East	.117	.036	.067	.00	.24
	South South	.083	.041	.527	-.05	.22
	North Central	.045	.044	.958	-.10	.19
	North East	.157*	.040	.008	.02	.29

*. The mean difference is significant at the 0.05 level.

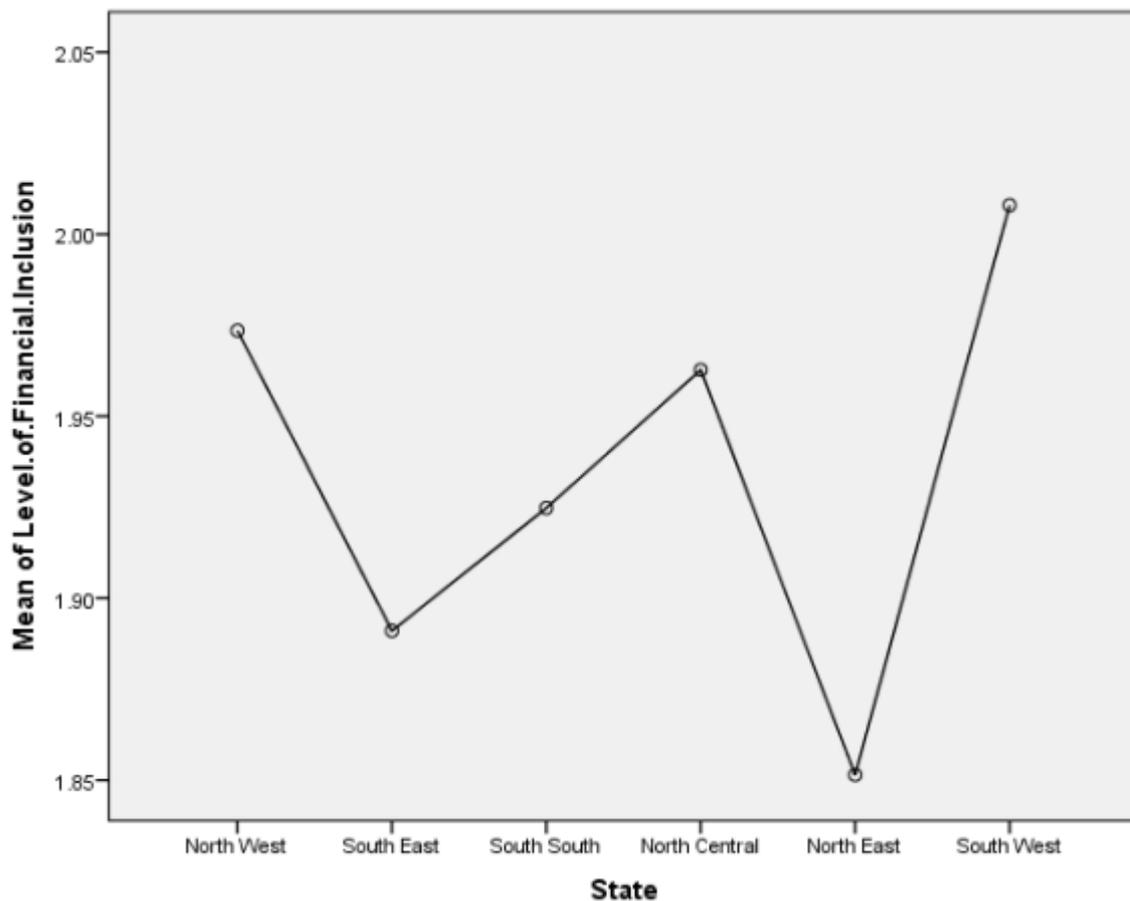
Level.of.Financial.Inclusion

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State	N	Subset for alpha = 0.05	
		1	2
North East	296	1.85	
South East	427	1.89	1.89
South South	263	1.92	1.92
North Central	201	1.96	1.96
North West	504	1.97	1.97
South West	296		2.01
Sig.		.084	.113

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 302.112.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.



FACILITIES FOR THE PHYSICALLY CHALLENGED



Provision for the physically challenged at the entrance of a bank



Physically challenged-friendly ATM



Access for physically challenged into buildings



Conveniences adapted for the physically challenged



Documents/forms made in Braille for the visually impaired