

Financial Inclusion and Psychological Wellbeing: A Systematic Review

¹Abdulmalik Atta*

Corresponding Author: * aatta@cbn.gov.ng

¹ Central Bank of Nigeria, Nigeria

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ABSTRACT

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The focus of this study is to evaluate the literature on the connections between financial inclusion and psychological wellbeing through a systematic review. The results implied that the literature utilized financial services, capacity, resilience, and financial awareness to measure financial inclusion. Indicators of psychological well-being include contentment and happiness, good housing and health, ownership of assets, financial security, and accessibility to sanitation services. Financial inclusion results in greater financial wellness, which benefits psychological wellbeing. Therefore, there is need for proactive measures to ensure that the financially excluded people are integrated into the financial system, which will improve their psychological wellbeing.

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Introduction

Financial inclusion is considered such a pertinent enabler of quality of life based on the notion that improving people's access to finance allows for easier day-to-day living and assists families and businesses in planning everything from long-term objectives to unexpected emergencies [1]. People who have accounts are much more inclined to utilize other financial products, such as insurance and credit to begin and grow businesses, make investments in

health or education, mitigate risk, and weather economic shocks, all of which can improve their overall quality of life [2].

The United Nations Capital Development Fund (UNCDF) has identified financial inclusion as a critical policy that will enable the achievement of many of the 17 Sustainable Development Goals (SDGs). This is evidenced by the fact that it is identified as a target in eight of the 17 SDGs which include “SDG1, on eradicating poverty; SDG 2 on ending hunger, achieving food security and promoting sustainable agriculture; SDG 3 on ensuring health and well-being; SDG 5 on achieving gender equality and economic empowerment of women; SDG 8 on promoting economic growth and jobs; SDG 9 on supporting industry, innovation, and infrastructure; and SDG 10 on reducing inequality.

Financial inclusion is expected to empower a citizenry by providing them access to financial resources that will enable them to proactively develop their livelihoods through which they can provide for themselves and their families without relying on charity from others. Globally, financial inclusion efforts have achieved tremendous progress in improving people’s access to financial services as evidenced by the fact that between 2011 and 2017, 1.2 billion individuals worldwide gained access to a bank account, representing significant progress toward global financial inclusion [3].

In 2017, 69% of adults worldwide had an account [4]. More than 80 countries have now launched digital financial services, such as those incorporating the use of mobile phones, with some reaching meaningful scale [5]. As a result, millions of previously marginalized and unserved poor customers are transitioning from solely cash-based exchanges to formal financial services provided via mobile phone and other digital technology [6].

From a Nigerian perspective, financial inclusion efforts are driven by the 2012 National Financial Inclusion Strategy (NFIS) developed by the Central Bank of Nigeria. The Strategy explained the regulatory obstacles as well as the supply-side and demand-side issues that needed to be overcome to improve financial inclusion in the country. In terms of implementation, the NFIS identified four key strategies: i) agency banking, ii) mobile payments/mobile banking, iii) client empowerment and iv) linkage models. A review of the progress of the policy was undertaken from October 2017 to June 2018. The review revealed that as of 2016, 58.4% of adults in Nigeria were financially included which the Report deemed as “significant progress” in achieving the 2020 goal of 70% financial inclusion of all Nigerian adults.

Theoretically, financial inclusion is expected to have a positive impact on the Quality of Life (QOL). QOL is defined as satisfaction with one's physical and psychological well-being, one’s social and physical environment, as well as one’s capacity to interact with the environment [7]. Psychological well-being is a crucial aspect of an individual's overall QOL and

refers to an individual's subjective evaluation of their mental and emotional state, including their life satisfaction, happiness, self-esteem, sense of purpose, and emotional stability [8]. Psychological well-being plays a significant role in shaping one's ability to cope with life's challenges, form meaningful relationships, and experience a sense of fulfillment and contentment [9].

The quality of life (QOL) of Nigerians has declined at an alarming rate due to several negative trends occurring simultaneously: insecurity has increased dramatically with the rise of bandits who attack villages and towns indiscriminately, killing scores of people and destroying farmlands and other properties worth millions of Naira [10]. These bandits have also made kidnapping a business, stopping motorists and even trains and kidnapping people for millions of Naira in ransom [11].

The attack on villages has reduced the amount of agricultural output available nationwide as most agriculture takes place in rural areas and this has threatened the nation's food security and led to an upsurge in food prices [12]. Fuel prices have also increased over the years increasing the level of hardship on Nigerians and the quality and availability of critical services such as electricity, water and health remains grossly inadequate [13]. The Human Development Index provides evidence of this decline in the QOL of Nigerians with the country's ranking steadily declining over the years, from 156 out of 187 countries in 2013 to 161 in 2020 [14].

Several empirical studies have attempted to address the issue of quality of life and financial inclusion. However, an attempt to conduct a systematic review of the literature on the relationship is still lacking. Conducting a systematic review on what is available from the literature is fundamental as a means of keeping track of the studies progress. Therefore, this study was conducted to answer the following research questions: what are the measures of financial inclusion and psychological wellbeing? and how does financial inclusion affect psychological wellbeing?

Methods

The study carried out a systematic review of existing literature with the aim of resolving the problem of researcher bias by applying a thorough search and analysis framework that combines cross-referencing between researchers, thorough searches of research databases, and the use of exclusion criteria [15]. According to Ref. [15] a research synthesis has six stages: defining the issue, gathering research evidence, assessing the evidence for inclusion and exclusion (selection criteria), analyzing the evidence, interpreting the cumulative evidence, and presenting the findings. The purpose of the study is to provide knowledge of the indicators used to measure both financial inclusion and psychological

wellbeing as well as to conduct a systematic review to determine how financial inclusion influences psychological wellbeing.

The process of retrieving the documents began with a search for evidence on Google Scholar, which includes both journal articles and conference proceedings. In order to retrieve the articles, the following keywords were entered into the search engine: utilization of financial services, financial resilience, financial capability, and psychological well-being. The words regarding the definition term of psychological wellbeing with synonyms words were also identified such as: contentment and happiness as shown in Table 1 and Table 2.

Table 1. Search Strategy

Words used as a search strategy for financial inclusion	Words used as a search strategy for quality of life (psychological wellbeing)
Use of financial services, financial capability, financial resilience, financial literacy, financial awareness	Contentment and happiness, better access to sanitation services, health and housing quality, risk asset holding, financial security, financial well-being

Table 2. The inclusion and exclusion criteria

Criterion	Eligibility	Exclusion
Literature type	Journal (research articles)	Systematic reviewed journals, book series, book, conference proceeding, commentaries, news reports
Language	English	Non-English
Scope	Between 2017-2023	<2017

Fig. 1 depicts the recruitment and screening procedure. The search conducted brought in a total of 234 articles, and after eliminating duplicates, 228 articles were chosen for screening based on their titles. After title screening, 192 studies were eliminated, and 36 studies had their eligibility checked by text screening. Using the current inclusion and exclusion criteria, 13 of these 36 articles were eliminated. As a result, 23 papers were selected as being qualified for the review and are presented in Table 3.

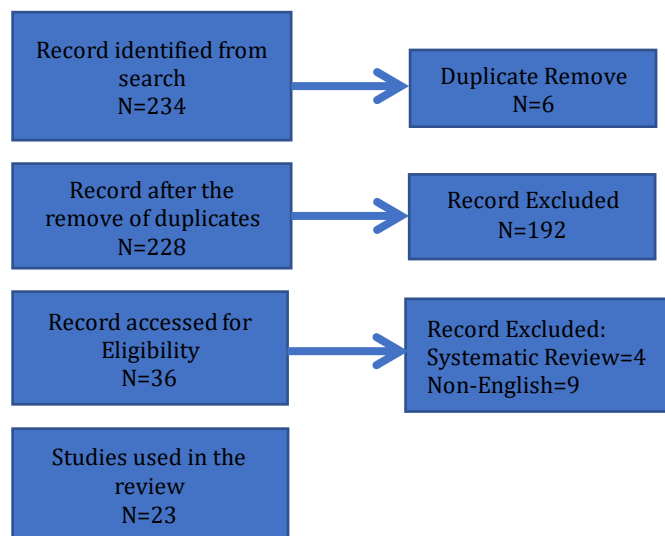


Fig. 1. Recruitment and Screening Process

Results and Discussion

A. Measurement of Financial Inclusion

There are different measures of financial inclusion. The following studies were found in the search for the financial inclusion measurement: In a study by Ref. [16], financial inclusion (FI) was measured and conceptualized from the supply perspective using the number of ATMs per 100,000 individuals, bank branches per 100,000 adults, deposit accounts per 1,000 adults, and loan accounts per 1,000 adults. Financial inclusion was examined by Ref. [17] in India where financial inclusion was conceptualized as number of banks, number of ATMs, number of low-income customers and number of new low-income accounts.

Financial inclusion was studied by Ref. [18] to assess the relationship between financial capability and financial well-being among rural households in the US, but from the point of view of the healthcare providers in these regions. Data was collected through a combination of a survey of 132 respondents and an online focus group discussion with 17 participants. Financial inclusion was also investigated by a study conducted by Ref. [19], it was conceptualized using utilization of financial services such as ATM and mobile banking among eight countries in Sub-Saharan Africa.

B. Financial Inclusion and Psychological Wellbeing

This section provides an explanation of how financial inclusion affects psychological well-being. Table 3 summarizes the studies that had been done to determine the connection between financial inclusion and psychological well-being. The relationship between the use of financial services, such as using an ATM or mobile banking, and financial well-being was first evaluated. Ref. [20] concluded that mobile banking services and use of ATM as a financial inclusion strategy had a significant effect on the financial well-being of SME in Eastern Sub-Saharan Africa. Similarly, a study conducted by Ref. [19] revealed that utilization of financial services had the most significant impact on the financial well-being of individuals in Sub-Saharan Africa.

In the same manner, Ref. [16] found that ATMs per 100,000 adults, bank branches per 100,000 adults, deposit accounts per 1000 adults as a measure of financial inclusion had a significant positive impact on the financial well-being in Bangladesh. Likewise, Ref. [21] revealed that Number of ATMs, borrowers, bank branches, deposit accounts, loan accounts and outstanding deposits as a measure of financial inclusion had a significant and positive impact on the welfare in Sub-Saharan Africa.

Ref. [22] found that Number of ATMs, bank branches, deposit accounts and borrowers as a measure of financial inclusion had a greater impact on human development in 38 countries. Ref. [23] discovered that Number of ATMs and bank branches as a measure of financial

inclusion were highly correlated with the income, health, and education dimensions of Human Development Index (HDI). On the other hand, Ref. [17] discovered that number of banks and ATMs as measure of financial inclusion did not significantly improve financial inclusion to the under-served population of India.

The next analysis concentrated on the connection between financial capacity and psychological wellbeing. Ref. [18] examined the relationship between financial capability and financial well-being in USA. The findings indicated that financial capability had a significant influence on financial well-being.

In the same vein, Ref. [24] collected data of 1000 women of community-based organization in India and found that financial capability was a significant predictor of these women's financial well-being, with decision-making ability partially mediating this relationship. On the contrary, Ref. [25] collected data of 7,811 Spanish household and found that financial capability had a significant negative relationship with the financial vulnerability.

Furthermore, Ref. [26] focused the analysis on the relationship between financial resilience and life satisfaction. The study collected data of Australian households and found that financial resilience was a significant predictor of life satisfaction. On the other hand, Ref. [27] focused on the analysis of financial literacy education as measure of financial inclusion and found that literacy education helped women develop financial skills which they then used to help improve their family's welfare levels. In a similar study conducted in Malaysia, Ref. [28] found that financial literacy had a significant effect on quality of life. Similarly, Ref. [29] found that financial literacy helped shape students' feelings of financial security.

Table 3. Characteristic of included studies

References	Study Area	Estimation Technique	Sample size and population	Financial Inclusion	Quality of Life (Psychological wellbeing)	Financial Inclusion and Psychological well-being
[20]	Eastern Sub-Saharan Africa	Binary Probit model		utilization of mobile banking	Financial well-being	Mobile banking services as a financial inclusion strategy had a significant effect on the financial well-being of SME owners.
[30]	South Africa	OLS regression	2006-2011	Utilisation of financial products	wealth index	Use of formal and informal sources of finance all had a positive and significant impact on an individual's welfare
[31]	China, India, Pakistan, Bangladesh, Malaysia and Indonesia	Panel pooled regression	1990-2018	Financial development, number of bank branches, loans to rural areas,	Human Development Index	Financial inclusion had a positive and significant impact on both economic growth and human well-being

References	Study Area	Estimation Technique	Sample size and population	Financial Inclusion	Quality of Life (Psychological wellbeing)	Financial Inclusion and Psychological well-being
[23]		Correlation analysis		Number of ATMs and bank branches	Human Development Index	All three financial inclusion components were highly correlated with the income, health and education dimensions of HDI.
[19]	Sub-Saharan Africa	Unconditional Quantile Regression (UQR)	2014-2015	Utilization of financial services	Financial well-being	Utilisation of financial services had the most significant impact on the financial well-being of individuals
[16]	Bangladesh	Multiple linear regression model		ATMs per 100,000 adults, bank branches per 100,000 adults, deposit accounts per 1000 adults, and loan accounts per 1000 adults	Financial well-being,	FI has had a significant positive impact on the financial well-being
[21]	Sub-Saharan Africa.	OLS regression	14-year period	Number of ATMs, borrowers, bank branches, deposit accounts, loan accounts and outstanding deposits	Welfare	Financial inclusion had a significant and positive impact on the welfare
[18]	USA	Multiple linear regression model	132 healthcare providers	Financial capability	financial well-being	Financial capability had a significant influence on the financial well-being
[17]	India	Binary logistic regression	Poor sections of Indian society	Number of banks, number of ATMs,	Socio-economic well-being	Financial inclusion not significantly improved financial inclusion to the under-served population of India.
[1]	India	Quantitative		Number of commercial bank accounts, credit accounts and bank branches	Education, health and housing quality	Financial inclusion had a significant association with Psychological wellbeing

References	Study Area	Estimation Technique	Sample size and population	Financial Inclusion	Quality of Life (Psychological wellbeing)	Financial Inclusion and Psychological well-being
[26]	Australia	Quantitative	Australian households	Financial resilience	Life satisfaction	Financial resilience was a significant predictor of life satisfaction
[22]	High, upper-middle, lower-middle and low-income countries	Quantitative	2009-2019	Number of ATMs, bank branches, deposit accounts and borrowers	Human development	Financial inclusion had a greater impact on human development
[27]	Chile	Quantitative	Women in Chile	Financial literacy education	Welfare	Financial literacy education helped women develop financial skills which they then used to help improve their family's welfare levels.
[32]	USA	SEM	USA households	Financial socialization and availability of the availability of financial	Financial literacy	Financial socialization and availability of financial products influence the financial literacy and financial access of individuals which in turn determine the financial behaviour of these individuals
[33]	Ghana	Multiple linear regression and Thematic analysis	779 immigrant entrepreneurs	Access to finance	Financial well-being	Access to finance was a significant determinant of the financial well-being of these immigrant entrepreneur
[24]	Indian	SEM	1000 women of community based organisation	Financial capability	Financial well-being	Financial capability was a significant predictor of these women's financial well-being, with decision-making ability partially mediating this relationship.
[25]	Spain	Probit regression models	7,811 Spanish household	Financial capability	Financial vulnerability	Financial capability had a significant negative relationship with the financial vulnerability

References	Study Area	Estimation Technique	Sample size and population	Financial Inclusion	Quality of Life (Psychological wellbeing)	Financial Inclusion and Psychological well-being
[34]	Indonesia	Generalised Least Squares	2015-2018	Accessibility, availability, utilization)	Community welfare	Financial inclusion had a significant positive impact on community welfare in Indonesia.
[28]	Malaysia	Generalized linear model	1186 Low-income individuals	Financial literacy	Mobility, self-care, usual activities, pain/discomfort and depression.	Financial literacy had a significant effect on respondents' HR-QOL.
[35]	Kashmir	PLS-SEM	203	Financial awareness, financial experience and financial skill.	Financial well-being	Financial literacy had a significant and positive influence on financial well-being, with financial self-efficacy partially mediating the relationship
[29]	Australia	Thematic analysis	31 international students	Financial literacy	Financial security	Financial literacy helped shaped students' feelings of financial security
[36]	low and middle income countries	Panel Regression Model	2000-2017	Digital and traditional financial inclusion	Better access to sanitation services	digital and traditional financial inclusion had a significant and positive influence on the ability of individuals in these countries to have access to sanitation services

Discussion

In total, 23 studies investigating the connections between financial inclusion and quality of life (psychological wellbeing) were found in this study via a systematic review. This systematic study employs a variety of techniques to evaluate both psychological wellbeing and financial inclusion. There was more consistent evidence of using financial services, financial resilience, financial capability, financial literacy, and financial awareness to measure financial inclusion by the previous studies. Financial well-being, health and housing quality, welfare, risk asset holding, financial security, better access to sanitation services, contentment and happiness were also used as a measure of psychological wellbeing. The majority of research findings indicated that financial inclusion significantly affects people's quality of life. It is

anticipated that enhanced psychological wellness will result from increasing usage of financial services, financial competency, and financial resilience. However, one study found a strong negative link between financial capacity and psychological wellbeing.

Summary of the review shows that financial Inclusion can lead to an overall improvement in the quality of life of a citizenry. As people gain access to financial services and resources, they may experience reduced stress, increased life satisfaction, and a greater sense of overall well-being. Further, it is important to note that the relationship between financial inclusion and psychological well-being is complex and multifaceted. While financial inclusion can have positive effects on mental well-being, it is just one of many factors that contribute to an individual's overall psychological health. Additionally, other social determinants of health, such as education, employment, and social support, also play crucial roles in shaping psychological well-being.

Conclusion

The study undertakes a systematic literature review in the fields of financial inclusion and psychological health. Studies of various designs carried out with a range of populations from throughout the world are included in this overview. This is crucial for the direction of the future since it will assist policy makers, researchers and decision-makers in formulating policy and plans for further research in the same field. According to this review, financial inclusion also leads to improved financial wellness, which in turn affects psychological wellbeing.

Conflict of Interest

The authors declare that there is no conflict of interest.

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Authors



Abdulmalik Atta is a Financial System Analyst currently affiliated with the Central Bank of Nigeria. Additionally, he is associated with Nile University of Nigeria, located in Abuja, Federal Capital Territory. With a substantial following and a wide network of professional connections, he actively engages in sharing insights and knowledge within his field. His commitment to research and development is evident in his continuous efforts to contribute valuable insights to the financial sector. (email: aatta@cbn.gov.ng).