**Title: What does gender tell us about the relationship between financial inclusion and employment in sub-Saharan Africa ?**

Authors: Oliver Lauche ASSIORO1, Elfy Déba YANGA BANGAGNAN1, Grace Fleurbellia BIONGO DOMBA1, Guide Geordalin KOLO GOLO1

1LARES, Faculty of Economics, Marien Ngouabi University, Brazzaville, Republic of Congo.

Email: [oliverassioro@gmail.com](mailto:oliverassioro@gmail.com), [elfybang311@gmail.com](mailto:elfybang311@gmail.com), [gracedomba@gmail.com](mailto:gracedomba@gmail.com), [guidekolo@gmail.com](mailto:guidekolo@gmail.com%20fr)

**Abstract:**

To meet the challenges of employment in Sub-Saharan African countries, it is important to promote the financial inclusion of men and women. To this end, our study carried out a gendered analysis of the relationship between employment and financial inclusion, using data from sub-Saharan African countries in the World Bank's Global Findex (2021). Using conditional logic, a financial inclusion indicator was constructed, and the level of financial inclusion in this part of the world is around 50%. The results of the logit model used to assess the effect of financial inclusion on employment revealed that financial inclusion promotes the employability of both women and men. The marginal effects are 15.41% and 11.77% respectively. These results enable us to formulate economic policy recommendations that go in the direction of pursuing financial inclusion policies in all their dimensions.

Keywords: financial inclusion, employment, conditional logic, Sub-Saharan Africa.

JEL Code: G21, J16, C25.

1. **Introduction**

Gender equality is not only a fundamental human right, but also a necessary foundation for prosperity and peace in the world. This equality implies equal treatment of men and women in employment. But the reality around the world is different, as women continue to face higher unemployment rates than men (International Labour Organization, ILO, 2024). This shows that women still face difficulties in accessing or creating employment. Tackling this form of inequality requires, among other things, measures to reduce the number of economic units that are financially excluded and to increase the number of people, including women, with access to formal financial services (Kling et al., 2020). The aim is to promote financial inclusion in view of its role in achieving the 17 Sustainable Development Goals (SDGs) (Asongu and Nting, 2022).

Financial inclusion is defined as access to the financial resources essential for promoting sustainable macroeconomic and microeconomic growth (Lenka and Barik, 2018). Indeed, it enables households and businesses to access financial products and services, such as credit cards, transactions, savings, insurance and payments, and ensures that these are offered on a sustainable basis (Singh and Kondan, 2011). Also, it has the merit, according to Mader (2018), of reducing poverty and inequality by enabling individuals to manage their payments, consumption and receive bank loans. In the same vein, it is argued that financial inclusion makes it possible to start a new business and expand an existing one (Ajide, 2021). As such, financial inclusion favors job creation, which would benefit the most disadvantaged strata as well as women. In this respect, it has been shown that financial inclusion contributes to the empowerment of women, by offering them more job opportunities. As a result, financial inclusion could reduce the gap in employment rates between men and women. In other words, financial inclusion can promote employment.

In the literature, the relationship between employment and financial inclusion is of both theoretical and empirical interest. Theoretically, several findings lead to a consensus that financial inclusion promotes employment. In this respect, financial inclusion, according to Shaw (1973), by relaxing interest rate controls, increases investment. This, in turn, leads to an increase in the number of businesses, creating additional job opportunities and, consequently, higher levels of employment. In addition, it has the advantage of attracting international investors to a country, creating more jobs (Parameshwara and Raghurama, 2011). At the micro level, financial inclusion increases employment and influences entrepreneurship (Koomson et al., 2023; Evans and Jovanovic, 1989). From the empirical evidence of this relationship, a monolithic framework around the results emerges, as these works (Han et al., 2025; Wu et al., 2023; Tiatité and Adama, 2022; Koomson and Danquah, 2021; Molefhi, 2019) arrive at findings that financial inclusion positively influences employment.

However, the approach adopted by the above works, despite the use of advanced econometric methods, can provide misleading results, if employment is disaggregated by gender. This is the approach we are using in this research. This approach could shed further light on the relationship between employment and financial inclusion in developing countries, where employment is an important element in the fight against poverty.

In the present research, we therefore analyze the relationship between employment and financial inclusion, taking gender into account, for the case of Sub-Saharan African countries. Inequalities between men's and women's participation rates persist, despite the policies undertaken, in the African labor market, particularly in sub-Saharan Africa. In these countries, there are also disparities in terms of financial inclusion. The results of the Global Findex (2021) report reveal that almost half of women (49%) do not have a formal financial account, compared with 61% of men. This 12 percentage point gap between men and women in account ownership is one of the highest in the world.

This reality calls for a doubling of efforts towards the financial inclusion of women in sub-Saharan Africa, as the financial exclusion of women will further limit their participation in economic life. This risks compromising the achievement of inclusive and sustainable development in these countries. On the other hand, improving women's financial inclusion will have significant effects in improving economic growth, financial access (Morsy, 2020), creating entrepreneurial opportunities for women (Saviano et al., 2017), reducing inequality (Balasubramanian et al., 2019 ; Botric and Broz, 2017). Yet one of the channels through which financial inclusion can achieve inclusive development is employment. The empirical evidence mentioned above indicates that financial inclusion contributes to job creation. In other words, it enhances people's employability. However, the impact of financial inclusion on employment is questionable according to gender, since the work of McDougal et al. (2019) ; Dupas et al. (2018) highlights a negative effect of financial inclusion on women's empowerment. This result therefore casts doubt on the positive effect of financial inclusion on women's employment. Despite some existing works, very few, if any, empirical analyses of the gendered relationship between financial inclusion and employment are known to exist.

Our research contributes to the existing literature in two ways. Firstly, we plan to position this research as an extension of the literature on the employment effects of financial inclusion, with a focus on the gender dimension. In other words, we want to know whether the employment effects of financial inclusion are gender-equitable, as we observe that gender disparities in employment persist despite progress in access to financial accounts in most countries. Taking gender into account in the relationship between employment and financial inclusion would be a significant addition to the literature.

Secondly, the contribution of this paper lies in calculating financial inclusion by abandoning the one-dimensional approach that leads most work to restrict financial inclusion most often to banking inclusion, i.e. bancarisation (Oumarou, 2021; Swamy, 2014). However, the issue appears more complex than we think if we consider financial inclusion in all its aspects, as the problem is no longer restricted to simply counting accounts. Let's assume a scenario where we count a low number of bank accounts but associated with high financial intermediation in a country, or conversely, a multitude of accounts associated with low-volume bank deposits and loans. This makes it difficult to assess the situation of high financial inclusion and to define the parameters to be taken into account when measuring financial inclusion (Oumarou, 2021). Thus, the results of such an approach will not lead to the development of effective policies to address financial inclusiveness in all its dimensions. The multidimensional approach overcomes this limitation, since it takes into account the aspects that are most important in the conceptualization of financial inclusion, namely the supply, demand and use of financial services. To this end, we construct the financial inclusion indicator using the conditional logic approach, which has the advantage, among other things, of taking into account the causal link between the dimensions of the phenomenon under study, unlike traditional methods such as principal component analysis (PCA). In this work, therefore, employment is captured by employability in terms of the data available to us.

Our results suggest that financial inclusion is an important factor for employment regardless of gender. In other words, financial inclusion offers relatively equal opportunities for men and women to access employment. And we also find that age, household financial situation, place of residence and level of education are determinants of employability.

The remainder of this work is organized as follows: the second section provides a brief review of the literature on employment and financial inclusion ; the third presents the methodology that led to the results interpreted and discussed in the fourth section, and the final section concludes. The remainder of this work is organized as follows: the second section provides a brief review of the literature on employment and financial inclusion ; the third presents the methodology that led to the results interpreted and discussed in the fourth section, and the final section concludes.

1. **Employment and financial inclusion, a brief review of the literature**

The role of financial inclusion in creating jobs and reducing gender inequality has attracted considerable interest in the literature. This literature focuses, on the one hand, on the relationship between financial inclusion and employment in general, and, on the other, on the relationship between financial inclusion and women's empowerment and participation in the labor market.

The literature acknowledges that financial exclusion generates inequality, since an individual's wealth depends on his or her ability to invest in human or physical capital (Kling et al., 2020). Financial development could therefore reduce these inequalities (Aghion and Bolt, 1997). With regard to the characteristics of a public good (Samuelson, 1945), the notion of financial inclusion implies unrestricted access to financial services for all. Thus, financial inclusion is an important lever for empowerment, cultivating, among other things, economic and social opportunities. As a result, it can improve people's chances of employability through job creation.

To this end, Lenka and Sharma (2017) indicate that access to appropriate financial services and equitable formal financial resources contributes to economic growth and job creation in a country, particularly among poor people. Indeed, a well-developed financial sector offers robust and dynamic local financial structures and networks. By acting as intermediaries, the financial sector enhances and stimulates productive investment and consumption by mobilizing savings, extending credit and helping to target profitable investments (Mehry et al., 2021). All these elements, a priori, should facilitate the development of businesses, particularly micro, small and medium-sized enterprises (MSMEs), thereby increasing the chances of employment for the population. According to Shaw's (1973) theory of financial deepening, financial inclusion, by relaxing interest rate controls, increases business financing and investment, leading to an increase in the number of businesses. The development of financial inclusion therefore helps to provide a sustainable local financing base, create employment opportunities by increasing the workforce, foster the exchange of technology and innovation, and improve economic competitiveness in various sectors. Osikena and Ugur (2016) argue that a developed financial sector is a transformative engine needed to develop and integrate high-potential economic sectors and offer productive jobs with attractive employment prospects.

At the microeconomic level, financial inclusion has transformed all aspects of life, enabling the poorest people to increase and diversify their sources of income, build up and accumulate financial assets and expand their economic opportunities. In addition, it is more likely to stimulate demand for labor and promote employment through the expansion of financing channels that encourage companies to invest more in new technologies, making their production much more efficient. Financial inclusion, through digital savings and access to digital credit, influences entrepreneurship (Koomson et al., 2023).

Furthermore, empirical verifications highlight a positive effect of financial inclusion on employment. Studying the impact of microcredit provided by financial non-governmental organizations (NGOs) on employment growth among SMEs in Ghana, Atiase et al. (2019) show that microcredit that is flexible in its repayment mode, accessible and adequate has a positive impact on job creation.

Geng and He (2021) draw on panel data from 40 countries over a period from 2010 to 2018, to explore the impacts of digital financial inclusion on sustainable employment. The results found, using the instrumental variables method, show that digital financial inclusion significantly promotes sustainable employment, but the effect appears to be heterogeneous across countries. In lower-middle-income economies, the effect is insignificant. On the other hand, it is significant in both upper-middle-income and high-income economies.

Analyzing the impact of financial inclusion on the unemployment rate of 35 developing countries for the period 2009 to 2018, Mehry et al. (2021) find that an increase in the level of financial inclusion in developing countries decreases their unemployment rate. In addition, the level of education, the inflation rate and economic growth have a negative and significant impact on the unemployment rate. This study involved the construction of a CPA financial inclusion index, based on dimensions such as access, use and quality of financial services.

For Owandjokuna (2024), who explores the relationship between financial inclusion and employment and the role of economic growth in this relationship with data from 13 West African countries between 2009 and 2021, financial inclusion positively impacts employment and economic growth. In this respect, financial inclusion is a means of boosting employment and fostering economic expansion in sub-Saharan African countries.

Using data from 32 sub-Saharan African countries, Tiatité et Adama (2022) study the effects of financial inclusion on employability. The results show that a 10 percentage point increase in the degree of financial inclusion leads to a 4.4 percentage point increase in the probability of being employed.

Wu et al (2023) examine the relationship between financial inclusion, workers' remittances and unemployment rates in Asian economies. The results of this study reveal that ATMs, remittances, internet users, GDP and financial globalization have a negative impact on unemployment levels in Asia.

The results of Molefhi's (2019) study showed that financial inclusion has a positive influence on both short- and long-term job creation in Botswana. Two years well before the aforementioned study, Mugo and Kilonzo (2017) examine the impact of financial inclusion on poverty and job creation in Kenya. The results of this study showed that financial inclusion enables poor households and businesses to carry out financial transactions, generate income, accumulate assets and manage risk. This is an important element in household and business resilience.

Looking specifically at work that analyzes the relationship between financial inclusion and women, it emerges, on the one hand, that financial inclusion promotes women's participation in economic activities by providing the financing needed to start and run businesses, as well as engaging in other activities conducive to women's empowerment (Assairh et al., 2020), and, secondly, that it provides low-income women with adequate financial tools to save, borrow, make and receive payments to be self-employed within the formal economic sector. This is a response to unemployment and the exclusion of women from the productive system. Without access to financing, women have difficulty saving income, lifting their families out of poverty and developing their own businesses. Consequently, access to savings becomes crucial, as it reduces women's vulnerability by helping them to invest in their human capital and that of their families, thus improving their long-term employment prospects (ILO, 2025).

Numerous studies on financial inclusion and women's empowerment, or even participation in the labor market, reveal two types of findings. On the one hand, authors such as Fareed et al. (2017); Asongu and Odhiambo (2018) and Zelu et al. (2022), find that financial inclusion improves women's employability through empowerment and labor market participation. And on the other, McDougal et al. (2019); Dupas et al. (2018) find a negative effect of financial inclusion on women's empowerment. This shows that the impact of financial inclusion on women's employment can vary depending on the socio-economic context, the specifics of the financial products and services on offer, and the policies and regulations in place. Furthermore, this finding implies greater investment in women's financial education, as the gaps in financial literacy are a cause for concern (Morsy, 2020). Gender-sensitive approaches are essential to maximize the positive effects of financial inclusion on employment.

Based on this reality, we formulate the following hypotheses:

H1: financial inclusion positively affects men's employability ;

H2: financial inclusion contributes negatively to women's employability.

1. **Methodology**

This section presents the data source, the construction of the multidimensional financial inclusion index, the theoretical and empirical model and the variables selected.

* 1. **Presentation of the data source**

This study examines the impact of financial inclusion on employment in 36 sub-Saharan African countries, using micro-data from the World Bank's Global Findex (2021) surveys. The selection of countries was based on data availability, enabling us to exploit the results of the Global Findex (2021) national surveys. These data provide the information needed to understand financial inclusion and capture individual characteristics.

Consequently, the data from this survey can be used to capture financial inclusion along the various dimensions we have selected, namely supply, demand and use. It can also be used to build a profile of the financially included.

* 1. **Construction of the financial inclusion indicator**

The financial inclusion indicator is constructed from conditional logic, which is a branch of logic. Indeed, traditional methods of measuring financial inclusion generally cover a single dimension of financial inclusion, namely access (Swamy, 2014). This fails to understand a complex reality that is financial inclusion, since it encompasses several dimensions such as access, use, demand and quality of financial services. To better grasp this complexity, we conceptualize financial inclusion using conditional logic. As mentioned above, this approach has the advantage of accounting for causal links between the various components of financial inclusion, which is not taken into account by methods such as principal component analysis (PCA). Indeed, conditional implication is perceived as causal implication (Giordano and Schwind, 2004).

Conditional logic studies propositions such as “If A, then B”, where A is a condition and B a consequence. It is used in economics to model hypothetical reasoning, decision-making under uncertainty and the construction of indicators. Before defining conditional rules, this approach requires us to consider the various components or dimensions of the phenomenon under study.

For this purpose, we used three dimensions of financial inclusion. The first, which refers to the supply of financial services, includes all individuals who reported having accounts with a financial institution, mobile money accounts and bank accounts. The second dimension, which reflects the demand for financial services, was assessed in terms of savings and borrowing. This reflects the needs and requests for financial services expressed by the population to financial institutions. The final dimension, usage, measures the actual use of financial services by individuals. This dimension, which enables us to assess their real integration into the financial system, has been captured by mobile payment, trust and proximity to financial institutions. These elements are very important for the integration of individuals into the financial system.

Once the dimensions have been selected, we define the conditional rules. For this purpose, the following rules have been defined:

- If supply is zero, demand is zero and use is zero, then we are in a situation of financial exclusion;

- If only supply exists, then we are in a situation where financial inclusion is technically inaccessible or ineffective. In other words, we are witnessing passive financial exclusion;

- If only demand exists, then the need for financial inclusion is unmet, or financial inclusion is impossible or impeded;

- If only use exists, then we are in a situation of informal financial inclusion;

- If supply and demand exist without use, then we are in a situation of potential but ineffective financial inclusion;

- If demand and use exist without supply, then accessibility to financial inclusion is said to be informal or non-institutionalized;

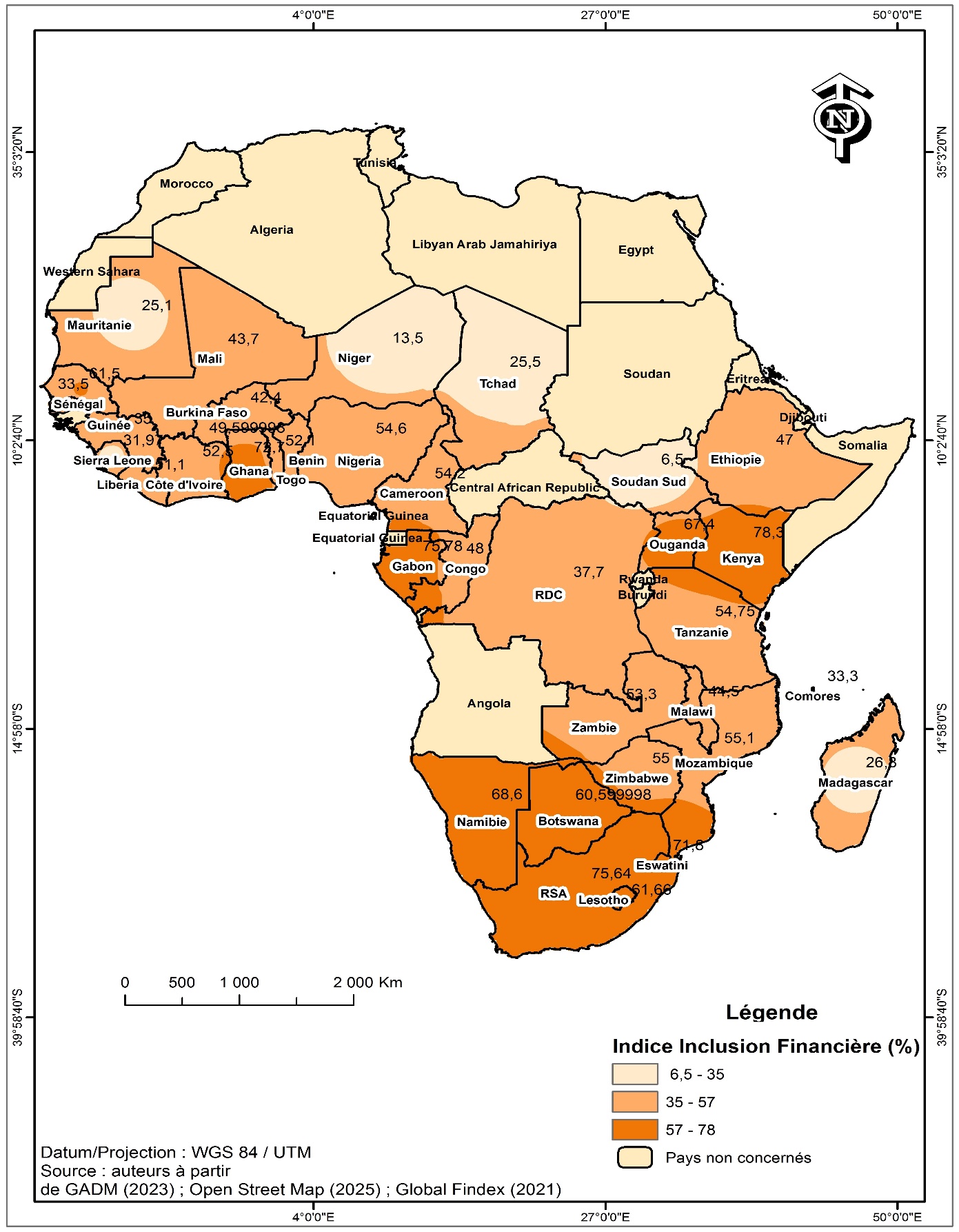
- If all conditions are met, i.e. supply, demand and use, we are in an optimal situation.

Each situation is defined by a threshold. The financial inclusion indicator is obtained by conditional aggregation of the previously defined rules. In other words, the financial inclusion indicator is obtained as follows:

(1)

After aggregation and taking thresholds into account, our indicator displays four modalities: deficient, partial, good and optimal. However, we have reduced it to two modalities, where the first two refer to financial exclusion and the last two to financial inclusion.

After aggregation, the overall level of financial inclusion is 49.91% for all Sub-Saharan African countries, meaning that 50.09% of the population remains excluded from financial services. This finding is consistent with the conclusions of the Observatoire de la francophonie économique (OFE, 2024), which indicated that by 2022, less than 50% of adults living in the UEMOA and CEMAC zones would have access to financial services. It is also close to the findings of the World Bank (2021), which highlighted that 57% of individuals in Africa did not have a bank account. However, it is important to note that there is a disparity between countries according to the level of financial inclusion, as illustrated by the map below.



The analysis reveals three groups of economies: those with the highest levels of financial inclusion include Namibia (68.60%), Botswana (60.60%), South Africa (75.64%), Senegal (61.50%), Uganda (67.40%), Kenya (78.30%) and others, reflecting relatively broad access to financial services. At an intermediate level, Burkina Faso (42.40%), Côte d'Ivoire (52.50%), Liberia (51.10%), Malawi (44.50%), Nigeria (54.60%) and Mozambique (55.10%) show moderate financial inclusion. This indicates partial coverage of financial services in these countries. Finally, among the economies with low levels of financial inclusion, we find Niger (13.50%), South Sudan (6.59%) and Mauritania (25.10%), highlighting persistent challenges in terms of access to financial services in these countries.

* 1. **Modeling and presentation of selected variables**

The study of employability requires qualitative choice models, due to the qualitative nature of the dependent variable. A probit or logit model can be used to estimate an individual's probability of employability. The dichotomous employability model is formulated according to the discrete-choice structure where individual i accesses a job () or not (). This model takes the form:

or even

P (=1) = F ()

Where

Xi is a vector of individual characteristics comprising variables designed to capture the productivity potential that impacts employability, including financial inclusion.

Fiis a vector of family characteristics linked to the home environment, influencing employability.

βk’, k = 0, 1, 2, parameter vector to be estimated.

Ɛi: is the error term, which may follow a normal or logistic distribution.

P is the probability of an individual getting a job.

F is the distribution function of the normal or logistic distribution.

Given that the distribution function can be specified by a normal or logistic distribution, leading to the estimation of either a probit or a logit, it should be noted that the results of the two models differ very little.

For the purposes of this work, we use a logit model. The model for estimation purposes is as follows:

Employment = +age + age2 + education + incom + resid + (4)

The variables used in equation 4 were selected from the literature. A description of these variables and their definitions is given in Table 1 below. This table shows, among other things, that 70% of individuals are employed in Sub-Saharan Africa. The population of Sub-Saharan Africa is relatively dominated by women (53.91%). In terms of financial inclusion, the proportion of people using all types of financial services is around 50%.

**Table 1: Description of variables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dependent variable** | | **Proportions** | | |
| **Employment** | It takes the value 1 if the individual is employed and 0 otherwise. | Employed | | 70 |
| Unemployed | | 30 |
| **Independents variables** | | | | |
| **Inclusion Index** | Multidimensional index constructed from the various components of financial inclusion. | Exclusion | | 50.08 |
| Inclusion | | 49.92 |
| **Age** | A continuous quantitative variable, it measures an individual's age. | Average age : 34 | | |
| **Gender** | A binary qualitative variable, it captures the gender of the individual. It takes modality 1 if the individual is male and 0 otherwise. | Female | 53.91 | |
| Male | 46.09 | |
| **Level of education** | Level of education: categorical variable, it takes the following categories 0: primary level; 1: secondary level; and 2: higher education. | Primary | 45,68 | |
| Secondary | 48.76 | |
| Higher | 5.56 | |
| **Household financial situation** | Categorical variable, it takes the following categories: 0: poor; 1: moderately well-off; and 2: rich. | Poor | 33.61 | |
| Moderately | 18,46 | |
| Rich | 47.93 | |
| **Living environment** | Binary variable, it captures the individual's place of residence, taking the value 1 if the individual lives in an urban area and 0 otherwise. | Rural | 50.96 | |
| Urban | 49.04 | |

Note: The figures in the table, apart from the average age, are in percentage.

1. **Presentation, interpretation, and discussion of the results**

Prelude to the interpretation of our results, it is necessary to validate our model. To do this, we use the classification test which allows us to understand the explanatory power of the model and the plotting of the ROC curve which helps to assess the discriminatory quality of the model. It follows that the model has a good predictive power, at 71.45%, and the area under the ROC curve is 0.6882, as shown in the graph below.



Based on these elements, our results can be subject to interpretation and discussion. It should be noted that, in qualitative models, the coefficients are not interpretable, but only the marginal effects allow for an appreciation of the weight of each of the model's explanatory variables. The results recorded in Table 2 below highlight two types of determinants of employability. On one hand, the determinants that increase the likelihood of accessing a job, such as financial inclusion, age, being a man, being in a moderately affluent or wealthy household, and having a higher level of education. On the other hand, living in an urban environment and having a secondary level of education reduce the chances of accessing employment.

The results show, all else being equal, that financial inclusion improves the chances of women and men accessing employment. The associated marginal effects are relatively significant, at 15.41% for women and 11.77% for men. In other words, women have a 15.41% chance of accessing employment compared to women who are financially excluded. On the other hand, financially included men have an 11.77% chance of being employed. These results are consistent with the findings of Tiatité et Adama (2022) and Song et al. (2024). These authors have shown that there is a positive relationship between financial inclusion and employment.

**Table 2: Marginal Effects**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variables | Ensemble | P-value | Women | P-value | Men | P-value |
| **Financial Integration** | | | | | | |
| Exclusion | **Ref** | | | | | |
| Inclusion | **0.1384\*\*** | 0.000 | **0.1541\*\*** | 0.000 | **0. 1177\*\*** | 0.000 |
| Age | 0.0229\*\* | 0.000 | 0.0231\*\* | 0.000 | 0. 0222\*\* | 0.000 |
| Age2 | -0.0286\*\* | 0.000 | -0.0293\*\* | 0.000 | -0. 0271\*\* | 0.000 |
| **Gender** |  |  |  |  |  |  |
| Female | **Ref** | | | | | |
| Male | 0.1298\*\* | 0.000 |  |  |  | 0.000 |
| **Education** |  | | | | | |
| Primary | **Ref** | | | | | |
| Secondary | -0.0314\*\* | 0.000 | -0.0206\*\* | 0.008 | -0.0449\*\* | 0.000 |
| higher | 0.0022 | 0.869 | 0. 0352 | 0.099 | -0. 0321\*\* | 0.000 |
| **Situation** |  |  |  |  |  |  |
| Poor | **Ref** | | | | | |
| Moderately | 0.0379\*\* | 0.000 | 0. 0279\*\* | 0.004 | 0. 0500\*\* | 0.000 |
| Rich | 0.0373\*\* | 0.000 | 0. 0165\*\* | 0.038 | 0. 0599\*\* | 0.000 |
| **Living** |  |  |  |  |  |  |
| Rural | **Ref** | | | | | |
| Urban | -0.0138\*\* | 0.000 | -0. 0194\*\* | 0.007 | -0. 0067\*\* | 0.314 |

Note: \*\*\*, \*\*, \*: statistically significant at the 1%, 5%, and 10% levels, respectively.  
Source: Authors based on data from the Global Findex (2021)

In detail, the results of Model 2 indicate that financial inclusion exerts a positive and significant marginal effect, suggesting that access to financial services promotes women's employment. An increase in financial inclusion thus raises the probability that a woman is employed by 15.41%. Apart from financial inclusion, age has a notable influence: it has a positive and significant effect, while its square is negative. This implies that there is a threshold beyond which the relationship between age and employability becomes negative. In other words, an individual's productivity at a given age decreases, which reduces their chances of being employed. Regarding the level of education, having a secondary education reduces women's chances of accessing employment by 2.06%. Conversely, a university degree has a positive but non-significant effect, which suggests that this impact on employment is not statistically conclusive.

The social situation of women also plays a role: women belonging to a moderately affluent class have a 2.79% probability of accessing employment, while those from a more affluent class show a probability of 1.65%. Finally, the place of residence has a negative and significant effect: women living in urban areas have a 19.4% probability of not accessing employment, probably due to unequal access to economic opportunities between rural and urban areas.

The results of Model 3, which pertains to men, indicate that better access to financial services increases the probability of a man being employed by 11.77%. The significant and non-significant variables are the same as those obtained in the women's model, but with slightly different marginal effects.

These results can be interpreted as follows: financial inclusion is a tool for employment equity in Sub-Saharan Africa. This can be explained by the fact that financial inclusion facilitates access to credit for businesses and households regardless of the individual's gender. This is important, on the one hand, to make new investments that will increase the level of employment. As a result, there is a higher chance that unemployed men and women will find employment. And, on the other hand, it allows poor households to access the financial products necessary for the development of certain activities such as entrepreneurship.

1. **Conclusion**

This study aimed to analyze the relationship between financial inclusion and employment, with a focus on the gender dimension. We used data from the Global Findex (2021) of the World Bank. From this data, we constructed a financial inclusion indicator based on conditional logic. It results in a financial inclusion level of approximately 50% in Sub-Saharan Africa. The results of the econometric model, particularly a logit model, indicated that financial inclusion improves the employability chances of both men and women with relatively significant marginal effects. These results suggest that public policymakers should continue with financial inclusion policies, such as promoting financial education, since financial inclusion is an effective tool for the employability of the population. However, this work has the limitation of not taking into account the sustainability or resilience dimensions of financial inclusion.

Bibliographic references

Aghion, P. & Bolton, P. (1997), « A theory of trickle-down growth and development », *The Review of Economic Studies*, Vol. 64 No. 2, 151-172. <https://doi.org/10.2307/2971707>

Ajide, F.M. (2021), « Financial inclusion and labour market participation of women in selected countries in Africa », *Economics and Culture*, 18, (1), 15-31. Doi: 10.2478/jec-2021-0002.

Asongu, S. A. & Odhiambo, N.M. (2018), *ICT, financial access and gender inclusion in the formal economic sector: Evidence from Africa*, AGDI Working Paper No. WP/18/058, African Governance and Development Institute (AGDI), Yaoundé. https://www.econstor.eu./bitstream/10419/204980/1/1664480560.pdf.

Asongu, S. A., & Nting, R. T. (2022). « The role of finance in inclusive human development in Africa revisited », *Journal of Economic and Administrative Sciences*, 38(2), 345-370. <http://dx.doi.org/10.1108/JEAS-07-2020-0138>

Assairh, L., Kaicer, M. et Jerry, M. (2020), « La microfinance et l’emploi des femmes: Revue de la littérature », *Revue du contrôle de la comptabilité et de l’audit*, 4, (2), 393-406. https://revuecca.com/index.php/home/article/view/527.

Atiase, V., Wang, Y. & Mahmood, S. (2019), « FNGOs and financial inclusion: investigating the impact of microcredit on employment generation in Ghana », *The International Journal of Entrepreneurship and Innovation*, 20, (2), 90-106. Doi: 10.1177/1465750319832478.

Balasubramanian, S.A., Kuppusamy, T. & Natarajan, T. (2019), « Financial inclusion and land ownership status of women », *International Journal of Development*, Vol. 18 No. 1, 51-69. Doi : 10.1108/IJDI-06-2018-0091.

Botric, V. & Broz, T. (2017), « Gender differences in financial inclusion: central and South Eastern Europe », *South-Eastern Europe Journal of Economics*, Vol. 15 No. 2, 209-227. <https://ojs.lib.uom.gr/index.php/seeje/article/view/9557>

Dupas, P., Karlan, D., Robinson, J., & Ubfal, D. (2018). « Banking the unbanked ? evidence from three countries ». *American Economic Journal: Applied Economics*, 10(2), 257–97. Doi: 10.1257/a20160597

Evans, D. S. & Jovanovic, B. (1989), « An estimated model of entrepreneurial choice under liquidity constraints »*, J Pol Econ*, 97: 808-827. <https://doi.org/10.1086/261629>

Fareed, F., Gabriel, M., Lenain, P. & Reynaud, J. (2017), *Financial Inclusion and Women Entrepreneurship: Evidence from Mexico*, OECD Working Papers No. 1411, https://dx.doi.org/10.1787/2fbd0f35-en.

Geng, Z. & He, G. (2021), « Digital financial inclusion and sustainable employment: Evidence from countries along the belt and road », *Borsa Istanbul Review*, <https://doi.org/10.1016/j.bir.2021.04.004>.

Giordano, L. & Schwind, C. (2004), Conditional logic of actions and causation, *Artiﬁcial Intelligence* 157, 239–279. Doi:10.1016/j.artint.2004.04.009

Han, Lihong & Lv, Qi & Zhang, Qi, (2025), « [Digital financial inclusion, credit access and non-farm employment](https://ideas.repec.org/a/eee/finlet/v72y2025ics1544612324015393.html) », [*Finance Research Letters*](https://ideas.repec.org/s/eee/finlet.html)*, Elsevier,* vol. 72(C). Doi: 10.1016/j.frl.2024.106510

Kling, G., Pesqué-Cela, V., Tian, L. & Luo, D. (2020), « A theory of financial inclusion and income inequality », *European Journal of Finance*, Doi:10.1080/1351847X.2020.1792960.

Koomson, I., & Danquah, M. (2021), « Financial inclusion and energy poverty: Empirical evidence from Ghana ». *Energy economics*, *94*, <https://doi.org/10.1016/j.eneco.2020.105085>

Koomson, I., Martey, E. & Etwire, P.M. (2023), « Mobile money and entrepreneurship in East Africa: the mediating roles of digital savings and access to digital credit », *Inf Technol People*, 36, 996-1019, https://doi.org/10.1108/ITP-11-2021-0906.

Lenka, K.S. & Sharma.R. (2017), « Does financial inclusion spur economic growth in India ? », *The Journal of Developing Areas*, 51, (3), 215-228. Doi: 10.1353/jda.2017.0069. https://www.econbiz.de/Record/10000360115

Lenka, S. K., & Barik, R. (2018), « A discourse analysis of financial inclusion: post-liberalization mapping in rural and urban India ». *Journal of Financial Economic* Policy, 10(3), 406–425. <http://dx.doi.org/10.1108/JFEP-11-2015-0065>

Mader, P. (2018), « Contesting fnancial inclusion ». *Development and Change*, 49(2), 461-483. <https://doi.org/10.1111/dech.12368>

McDougal, L., Klugman, J., Dehingia, N., Trivedi, A., & Raj, A. (2019), « Financial inclusion and intimate partner violence: What does the evidence suggest ? », *PloS one*, 14(10) : e0223721. <https://doi.org/10.1371/journal.pone.0223721>

Mehry, E., Ashraf, S. & Marwa, E. (2021), « The Impact of Financial Inclusion on Unemployment Rate in Developing Countries », *International Journal of Economics and Financial Issues*, 11, (1), 79-93. https://econjournals.com/index.php/ijefi/article/view/10871.

Molefhi, K. (2019), *Financial Inclusion and its Impact on Employment Creation in Botswana*, BIDPA Working Paper, n°60, p.28. [https://www.africaportal.org/publications/Financial inclusion-and- its-impact-employment-creation- botswana/](https://www.africaportal.org/publications/Financial%20inclusion-and-%20its-impact-employment-creation-%20botswana/)

Morsy, H. (2020), « Access to finance-mind the gender gap », *Quarterly Review of Economics and Finance*, Vol. 78, 12-21, Doi: 10.1016/j.qref.2020.02.005.

Mugo, M. & Kilonzo, E. (2017), Community level impacts of inancial inclusion in kenya with particular focus on poverty eradication and employment creation. *Central Bank of Kenya*, 13. <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2017/04/Matu-Mugo-and-Evelyne-Kilonzo-UN-SDGs-Paper5May2017-Kenya-Financial-Inclusion.pdf>

Organisation internationale du travail (2025), *Genre et inclusion financière*, <https://www.ilo.org/fr/resource/autre/genre-et-inclusion-financière>.

Organisation Internationale du travail, 2023, *Emploi et questions sociales dans le monde: tendances*, Genève: Bureau international du Travail, 2023.

Osikena, J. & Ugur, D. (2016), *Enterprising Africa What Role Can Financial Inclusion Play in Driving Employment-led Growth ?* London: The Foreign Policy Centre. <https://fpc/org/uk/wp-content/uploads/2016/01/1725.pdf>.

Oumarou, I. C. (2021), « Rôle de la microfinance dans l’inclusion financière des pays de l’UEMOA: application au cas du Niger. *Economies et finances*. Université de Rouen Normandie, 2019. Français. Tel-02359922.

Owandjokuna, J.F. (2024), « The impact of financial inclusion on employment in West Africa », *International Journal of Current Research*, 16, (3), 27510-27515. <https://doi.org/10.24941/ijcr.46858.03.2024>.

Parameshwara, P. & Raghurama, A. (2011), « Role of banks in ﬁnancial inclusion ». *Indian Journal Applied Research*, 3, 336-338. <https://doi.org/10.15373/2249555X/JUNE2013/112>

Samuelson, P. (1954), « The pure theory of public expenditure, *The Review of Economics and Statistics »*, Vol. 36 No. 3, 3-30.

Saviano, M., Nenci, L. & Caputo, F. (2017), « The financial gap for women in the MENA region: a systemic perspective », *Gender in Management*, Vol. 32 No. 3, 203-217, Doi:10.1108/GM-072016-0138.

Shaw, E.S. (1973), *Financial deepening in economic development*, Oxford University Press, New York.

Singh, K., & Kondan, A.S. (2011), « Financial inclusion, development and its determinants an empirical evidence of Indian States », *the asian economi review: the journal of the Indian Institue Of Economics*, vol. 53(1), 115-134.

Song, X., Li, J. & Wu, X. (2024), « Financial inclusion, education and employment: empirical evidence from 101 countries », *Humanities and Social Sciences Communications*, 11, (172), 1-11, <https://doi.org/10.1057/s41599-024-02630-4>.

Swamy, V. (2014), « Financial inclusion, gender dimension, and economic impact on poor households », *World Development*, Vol. 56, 1-15. <http://dx.doi.org/10.1016/j.worlddev.2013.10.019>

Tiatité, N., & Adama, N. (2022), « Effects of financial inclusion on employability in sub-Saharan Africa: a fuzzy set theory analysis », *SN Business & Economics*, 2(12), 196. <http://dx.doi.org/10.1007/s43546-022-00378-0>

Wu, W., Hon-Wei, L., Yang, S., Muda, I. & Xu, Z. (2023), « Nexus between financial inclusion, workers’ remittances and unemployment rate in Asian economies », *Humanities and Social Sciences Communications*, 10, (692), 1-10, <https://doi.org/10.1057/s41599-023-02133-8>.

Zelu, B.A., Iranzo, S. & Pérez-Laborda, A. (2022), *Financial Inclusion and Women Economic Empowerment in Ghana*, Working Papers ECO & ECO-SOS No. 04. <https://www.eco-sos.urv.cat/media/upload/domain_2326/arxius/wp/WP2022/WP_ECO-SOS_04-2022_ZELU_IRANZO_PEREZ.pdf>.