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The Role of Financial Inclusion in Shaping Labor Market Outcomes in Emerging Economies

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Abstract

Financial inclusion has emerged as a central focus of economic policymaking globally, with governments recognizing its potential to drive inclusive economic growth. By improving access to formal financial services for marginalized and economically weaker segments of society, financial inclusion can foster greater economic opportunities at both the individual and national levels. This study seeks to empirically examine the relationship between financial inclusion and unemployment rates in developing countries over the period from 2009 to 2023. The results of this study indicate that financial inclusion plays a significant role in reducing unemployment rates in developing countries. The findings suggest that as the level of financial inclusion increases through greater access to banking services, credit, insurance, and other financial products—individuals are better able to engage in economic activities, start businesses, and invest in skills and education, leading to a reduction in unemployment. In this context, financial inclusion is seen as a key enabler of economic mobility, especially for low-income households and those in rural or underserved areas. In addition to the positive effects of financial inclusion, the study identifies several other factors that influence unemployment rates in developing economies. The level of education emerges as a significant factor, with higher education levels correlating with lower unemployment. This suggests that improving access to quality education and training can enhance employability and reduce joblessness. Furthermore, inflation is found to have a negative impact on unemployment, as higher inflation often leads to economic instability, which can reduce job creation and increase the cost of living, making it harder for businesses to hire workers. Economic growth also plays a crucial role in reducing unemployment. The study suggests that as countries experience higher economic growth, businesses are more likely to expand, leading to an increase in job opportunities. Thus, promoting both financial inclusion and broader economic growth policies can create a more favorable environment for job creation. The empirical findings underscore the importance of financial inclusion as a tool for reducing unemployment in developing countries. By ensuring that more people have access to formal financial services, countries can foster entrepreneurial activity, improve financial resilience, and enhance the overall labor market outcomes. These results suggest that policymakers in developing nations should prioritize initiatives that increase financial inclusion, alongside policies that improve education and promote economic stability, to reduce unemployment and promote inclusive economic growth.

Keywords: Financial Inclusion, Unemployment, Developing Countries

JEL Codes: G21, J64, O15

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1. INTRODUCTION

The concept of financial inclusion gained significant attention in the early 2000s, primarily driven by research that highlighted how financial exclusion directly contributes to poverty and economic marginalization (Shah & Ali, 2023; Audi et al., 2023). Financial inclusion aims to provide access to a broad spectrum of financial services to all members of society, particularly those who are excluded from traditional financial systems (Shah & Ali, 2022). Unfortunately, despite global awareness, the world remains far from achieving universal financial inclusion. According to the Global Findex 2017, approximately 1.7 billion adults worldwide remain "unbanked," meaning they do not have access to an account with a formal financial institution (Demirguc-Kunt et al., 2018). Financial inclusion is not just beneficial for the excluded, it also helps those who already have access by creating a more diverse and competitive marketplace, with a wider array of financial products and services. The goal of financial inclusion is to ensure that all individuals, especially those from marginalized groups, can easily access financial products designed to meet their specific needs, at affordable costs (Ali & Sajid, 2020); Adjasi & Yu, 2021. These products include savings, credit, insurance, payments, pensions, and remittance facilities (Babajide et al., 2015; Ali, 2022; Xiong, 2024).

A well-functioning financial sector is essential for the growth and development of an economy. Financial intermediation—the process of transferring and allocating resources efficiently—is key to economic development (Karhan, 2019; Beck et al., 2000; Levine, 2005). A strong financial system supports the allocation of scarce resources in economies, especially those in

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transition, helping to foster growth and improve economic outcomes (Abigail, 2023; Ben Naceur and Zhang, 2016; Greenwood and Jovanovic, 1990). However, there are critics who argue that financial institutions are neither necessary nor sufficient for economic growth, suggesting that other factors may play a more prominent role (Pyka and Andersen, 2013; Ali, 2022). Despite these criticisms, the advantages of financial inclusion are widely recognized, and it is considered essential for driving economic development, reducing poverty, and enhancing the overall well-being of individuals. This paper, however, focuses specifically on the impact of financial inclusion on unemployment rates, an area of limited research, especially in developing countries. The intersection of financial inclusion and employment is also central to one of the 17 Sustainable Development Goals (SDGs) set by the United Nations. The SDGs aim to eradicate poverty and reduce inequalities globally by 2030. As such, the relationship between the development of domestic financial sectors and the reduction in unemployment in developing countries is of considerable importance. Does increasing financial inclusion decrease unemployment? And if so, how does this process work? The recent global financial crisis, which resulted in significant job losses, particularly in countries with more developed financial systems, has raised important questions about the role of finance in the labor market. Studies such as Pagano and Pica (2012) have examined the connections between financial stability and labor market outcomes, suggesting that while a strong financial sector is critical, its role in directly reducing unemployment is complex and multifaceted. However, empirical findings such as those from Bruhn and Love (2014) suggest a positive relationship between financial access and labor market outcomes. They found that improving access to finance had a significant positive impact on labor market outcomes, suggesting that financial inclusion may reduce poverty by improving employment prospects. The idea is that when individuals and businesses have access to financial services, they can invest in education, start businesses, and create jobs, which in turn helps lower unemployment rates. Thus, financial inclusion is not only a matter of economic efficiency but also a powerful tool for reducing unemployment and fostering inclusive economic growth (Muhammad, 2023; Ali & Mohsin, 2023; Ali, 2022; Roy & Madheswaran, 2020; Ahmad, 2019).

This research aims to contribute to the literature by examining how financial inclusion can directly impact the unemployment rate in developing countries, filling a gap in the existing body of work. Given the context of financial instability in many developing economies, this study provides valuable insights into how increasing access to formal financial services can help address labor market challenges, reduce poverty, and promote sustainable development. By focusing on the interplay between financial inclusion and employment, the study underscores the importance of creating inclusive financial systems as a critical policy tool for achieving broader economic and social goals. A well-developed financial sector plays a critical role in fostering a robust and dynamic economy by establishing strong local financial structures and networks. This sector is responsible for providing a wide range of essential functions, including offering financial products and services, conducting business and financial risk assessments, advising on development strategies, formulating appropriate regulatory frameworks, and ensuring adequate financial supervision (Farahmand, 2019; Safdar & Malik, 2020; Modibbo & Inuwa, 2020; Sossounoy & Kolenikov, 2023; Feng & Qi, 2024). These functions enable the financial sector to act as a key intermediary in the economy, facilitating the flow of resources and capital within the system (Ahmad, 2018; Khan & Rehman, 2021; Avelino & Coronel, 2021; Pacillo, 2022; Chen, 2022; Ackah, 2023).

One of the primary roles of the financial sector is to mobilize savings and allocate credit efficiently, which in turn supports both investment and consumption. By offering various financial instruments such as loans, insurance, and investment opportunities, the financial sector helps direct capital toward productive investments (Shahid & Ali, 2015; Kumar & Kumar, 2020; Zhan, 2020; Kilyachkov & Chaldavea, 2021; Osei & Acheampong, 2021; Ang, 2022). Additionally, the sector supports risk management through insurance products, provides payment and transfer systems, and assists businesses in targeting profitable ventures. These services are especially crucial for Micro, Small, and Medium Enterprises (MSMEs), which often face challenges in accessing financing. A well-functioning financial sector can help smooth and accelerate the development of MSMEs by providing them with the financial tools necessary for growth, innovation, and scaling operations. Furthermore, the development of domestic financial sectors serves as the backbone for creating a sustainable local funding base, which is essential for long-term economic growth. By fostering a stable financial environment, it becomes easier for businesses to access capital for expansion and innovation. This, in turn, leads to the creation of employment opportunities and facilitates the exchange of technology and ideas. Financial sector development improves economic competitiveness by enhancing the capacity of different sectors, such as agriculture, manufacturing, construction, food processing, and infrastructure. As businesses gain better access to financing and financial services, they become more competitive, efficient, and innovative, which helps them thrive in the global marketplace (Alvi & Shahid, 2018; Umoh & Effiong, 2024).

Moreover, the financial sector acts as a catalyst for the transformation of economic sectors with high potential for job creation. By promoting productive investment and facilitating the development of industries with strong growth prospects, the financial sector contributes significantly to the creation of worthy employment opportunities. These jobs not only provide income but also promote skill development, innovation, and technological advancements. As such, the development of the financial sector is not only essential for economic growth but also for improving the livelihoods of individuals by offering stable and productive employment prospects. Strengthening and developing the financial sector is key to unlocking the full potential of an economy. A well-functioning financial system provides businesses, particularly MSMEs, with the resources and tools they need to grow and succeed. It also promotes broader economic transformation by improving competitiveness, fostering innovation, and creating meaningful employment opportunities (Audi et al., 2022). As such, financial sector development is indispensable for driving the economic development and inclusive growth necessary to meet the challenges of the modern

world.

2. LITERATURE REVIEW

There are multiple definitions of financial inclusion in the literature, as different researchers and organizations have approached it from various perspectives. Sarma (2008) provided a simple definition, describing financial inclusion as a process that ensures the availability, access, and use of the formal financial system to all members of the economy. However, Kochhar (2009) offered a more nuanced view, arguing that financial inclusion goes beyond mere access to financial services. It also involves ensuring that access is timely, adequate, transparent, fair, and affordable, particularly for vulnerable groups. Kochhar stressed that financial inclusion should be achieved through formal financial institutions rather than informal lenders, emphasizing that access must be transparent and cost-effective. In their study, Nandru et al. (2016) expanded on this idea, noting that financial inclusion encompasses a broad range of services, including access to banking products like savings accounts, credit, remittances, and insurance, all of which should be available at affordable costs to low-income and disadvantaged groups. This comprehensive view underscores that financial inclusion is not just about access to financial services but also about ensuring the quality and accessibility of these services across different segments of society. The United Nations report on financial inclusion defines it as the sustainable provision of affordable financial services that integrate the underprivileged into the formal economy (International Telecommunication Union, 2016). Similarly, the International Monetary Fund (IMF) describes financial inclusion as organized efforts aimed at ensuring that financial services are accessible to everyone, particularly the poor and marginalized populations. The World Bank defines financial inclusion as the provision of affordable and useful financial products and services—such as credit, payments, savings, and insurance—that meet the needs of individuals and businesses and are delivered in a responsible and sustainable manner to all members of society (World Bank, 2018). Financial inclusion seeks to bring those who are excluded from the financial system into the fold of formal financial services, including savings, payments, credit, transfers, and insurance (Hannig and Jansen, 2010). This approach is aimed at ensuring that banking services are accessible to all, especially to low-income groups, facilitating the efficient allocation of productive resources. It also strives to provide these services at affordable prices to financially excluded households and micro, small, and medium-sized enterprises (MSMEs), thus contributing to a more inclusive financial system (Yorulmaz, 2013).

The benefits of financial inclusion are evident at both the micro and macro levels. On the micro level, access to financial services allows families to better organize their income and expenses. For example, access to credit enables individuals to plan for future expenses, such as educational costs, thereby improving their long-term prospects. Additionally, by providing easier access to financing, financial inclusion encourages entrepreneurship. This enables individuals to start small businesses, contributing to higher national economic output (Blando, 2013). Shirin (2016) further emphasized that financial inclusion is not just about increasing access to financial services but also ensuring that the access provided is appropriate. For access to be appropriate, it must be transparent, fair, cost-effective, and facilitated by mainstream financial institutions. Simply increasing the number of bank branches, deposit accounts, or ATMs is not sufficient to guarantee greater access and usage of financial services. A comprehensive approach that includes not only availability but also the affordability, accessibility, and quality of financial services is essential to achieving true financial inclusion. Ultimately, the goal of financial inclusion is to create an inclusive financial system that benefits both individuals and the broader economy. By providing low-income groups, MSMEs, and marginalized populations with access to essential financial services, financial inclusion helps drive economic development, reduce poverty, and support sustainable economic growth.

International institutions and governments are increasingly recognizing the importance of financial inclusion, not just as a tool for improving the well-being of citizens, but also as a key driver of economic growth, social stability, and financial transparency. Financial inclusion goes beyond simply providing access to financial services; it plays a crucial role in reducing poverty, empowering individuals, and fostering opportunities for those who are typically excluded from the formal economy. By enabling marginalized populations to access financial services such as savings, credit, and insurance, financial inclusion can protect individuals from financial shocks, improve economic resilience, and create pathways for upward mobility. One of the major benefits of financial inclusion is its potential to reduce corruption and tax evasion by formalizing financial transactions. As more people gain access to formal financial systems, the size of the informal economy shrinks, and transparency increases. This reduces opportunities for illicit financial activities and enhances the ability of governments to collect taxes, improve public service delivery, and allocate aid effectively. For example, the effective distribution of domestic and international aid to those in need becomes more efficient when recipients can access financial services, reducing administrative costs and ensuring that resources reach the right people. Additionally, increased financial inclusion contributes to greater security in society, as individuals no longer need to rely on carrying large amounts of cash, which can be risky in certain environments (Lochy, 2020).

Research in developing countries has shown the positive impact of financial inclusion on job creation and economic development. In the Philippines, for instance, Kondo (2007) found that access to micro-credit significantly boosted the creation of new micro-enterprises and contributed to job creation. Households that received microcredit were responsible for starting 20% more micro-enterprises than those who did not receive credit, and they created 17% more jobs per capita. Similarly, in Uganda, the privatization of the Uganda Commercial Bank and its subsequent expansion into previously underserved areas led to greater access to financial services, particularly for rural populations and agricultural sectors, which

are critical for job creation (Clarke et al., 2007). The World Bank has also highlighted the economic benefits of increased financial inclusion. Their research found that a 1% increase in the level of financial inclusion led to a 0.7% increase in employment, a 0.5% increase in the number of new businesses, and a 0.3% growth in GDP (Bruhn and Love, 2009). This underscores the broader economic impacts of financial inclusion, which can stimulate job creation, foster entrepreneurship, and contribute to economic growth.

Financial inclusion is particularly important for entrepreneurs, who often face barriers to accessing credit. Fonseca et al. (2001) emphasized that high start-up costs can discourage potential entrepreneurs, reducing the likelihood of new business creation and ultimately leading to lower levels of employment. When entrepreneurs have limited access to credit, they are unable to invest in their businesses, which in turn prevents the creation of new jobs. By improving access to financial services, especially credit, financial inclusion can help entrepreneurs start and grow their businesses, leading to job creation and a reduction in unemployment. Studies have shown that financial inclusion is positively correlated with employment creation at both the micro and macro levels. For example, Cull et al. (2014) found that financial inclusion had a positive impact on employment, particularly for poor households. In a similar vein, the World Bank (2014) concluded that access to finance for small firms is linked to increased innovation, job creation, and business growth. Mol (2014) argued that financial inclusion helps break the cycle of poverty and unemployment, serving as a source of empowerment by enabling individuals to take control of their finances. The consensus from various studies is clear: financial inclusion can play a critical role in job creation and poverty reduction by providing poor individuals and businesses with the financial tools they need to succeed. By ensuring access to credit and other financial services, financial inclusion enables individuals to create self-employment opportunities and contribute to broader economic development (Zulfiqar et al., 2016). Ultimately, the provision of financial services to underserved populations can foster a more inclusive economy, where entrepreneurship flourishes, businesses grow, and unemployment levels decrease. There is considerable evidence suggesting that financial inclusion interventions can lead to both direct and indirect employment outcomes, enhancing the economic prospects of individuals and communities. Financial inclusion goes beyond merely increasing access to financial services; it also involves equipping people with the financial capabilities to use these services effectively. This empowerment allows individuals to invest in education, which improves their employability, or to finance entrepreneurial ventures that create their own employment opportunities (Sykes et al., 2016). By offering individuals in underserved groups the tools and resources to manage their finances, financial inclusion can positively impact overall employment levels. For example, financial services enable people to accumulate assets, mitigate financial risks, and generate more income, contributing to the achievement of inclusive growth.

A study by Mugo and Kilonzo (2017) in Kenya examined how financial inclusion influences both poverty and unemployment. Their findings revealed that financial inclusion allows vulnerable groups, low-income households, and informal enterprises to engage in financial transactions, accumulate assets, and manage risks, ultimately leading to increased income generation. The study also highlighted the role of mobile money in transforming women's livelihoods in Kenya. It was found that mobile money enabled approximately 185,000 women to shift from subsistence farming to entrepreneurship, which not only created employment for these women but also provided job opportunities for others. Kim et al. (2018) conducted an empirical study to examine the importance of financial access for labor market outcomes, using data from 49 developed and developing countries between 1991 and 2014. Their findings suggest that financial development and market concentration in banking systems influence unemployment. Specifically, unemployment tends to increase with greater financial development and market concentration, while it decreases with a more market-oriented approach. This highlights the importance of the regulatory environment; when regulations around credit access are rigid, unemployment tends to rise, underscoring the need for flexible financial systems that can support job creation.

Molefhi (2019) studied the impact of financial inclusion on employment creation in Botswana between 2004 and 2016. The research showed that the ownership of bank accounts, availability of bank branches, and access to borrowing from commercial banks had a positive effect on employment levels, both in the short and long term. However, an increase in the number of depositors with commercial banks was found to have a negative effect on employment, suggesting that financial inclusion might not always lead to job creation in every context. On the other hand, some studies have shown a less clear or even negative relationship between financial inclusion and employment. Yorulmaz (2016) found that while employment and financial inclusion were positively correlated, those who were unemployed or irregularly employed were less likely to engage with the formal financial system. In this case, employment appeared to be the driving factor behind access to the financial system, rather than the other way around. This suggests that financial inclusion alone may not be sufficient to reduce unemployment, and that employment opportunities must first exist before individuals are able to benefit from financial services.

Contrary findings have also emerged in research on microcredit and employment creation. For instance, Barnes et al. (2001) analyzed data from Zimbabwe and concluded that microcredit did not have a significant impact on employment levels in businesses. Similarly, a review by Van Rooyen et al. (2012) on microfinance in sub-Saharan Africa found that microfinance interventions had little impact on job creation. Furthermore, Grimm and Paffhausen (2015) conducted a meta-analysis across 54 countries and concluded that microfinance was not an effective tool for creating new jobs. The explanation for these mixed results often centers on the fact that many microfinance programs were designed with a focus on income stabilization rather than job creation, which might explain their limited impact on employment outcomes. Despite these inconsistencies, the

overarching question remains: does financial inclusion have a significant impact on unemployment, particularly in developing countries? The persistent issue of high unemployment in many developing economies, along with its negative implications for income inequality, social stability, and political cohesion, underscores the importance of addressing this question. As noted, empirical research on the relationship between financial inclusion and unemployment remains scarce, and the results from existing studies are mixed. While some studies affirm that financial inclusion plays a critical role in reducing unemployment, others find no significant effect. Furthermore, there are arguments suggesting that it is not financial inclusion that drives employment, but rather the reverse—that employment creates the conditions for greater financial inclusion. Given the complexity and the mixed results of previous studies, further research is needed to clarify whether there is a bidirectional or unidirectional relationship between financial inclusion and unemployment. The research discussed in this paper aims to address this gap by investigating the direct impact of financial inclusion on the unemployment rate in developing countries. This study, to the best of our knowledge, is one of the few to explore financial inclusion as a determinant of unemployment and to test its potential role in reducing the unemployment rate in the context of developing economies.

3. METHODOLOGY

Based on extensive review of literature, the model of our study become as:

UN=f(FII, EDU, EG, INF)

Where

EDU = the primary school enrollment as a proxy for the education level

EG = economic growth

INF = inflation rate

This study adopts a quantitative research approach, utilizing a balanced panel dataset covering the years 2009 to 2023. The dataset includes annual data on the unemployment rate, various indicators of financial inclusion, and several control variables for 35 developing countries. All data used in the analysis has been gathered from reputable secondary sources, such as international reports and established databases. The unemployment rate serves as the dependent variable in this study, measured as the percentage of the total labor force that is unemployed. To account for other factors influencing unemployment, several control variables are incorporated into the model. These include the inflation rate, which is measured as the percentage change in the Consumer Price Index (CPI), reflecting the inflationary trends in each country. Economic growth, represented by the growth rate of GDP per capita, is also used as a control variable, capturing the overall economic performance and living standards of the countries in question. Education is proxied by primary school enrollment, which provides an indicator of the education level of the population, with data sourced from UNESCO.

The primary focus of this study is financial inclusion, which serves as the independent variable. Since there is no universally accepted single measure of financial inclusion, the study constructs a composite index designed to capture various aspects of financial inclusion. This index is composed of three key dimensions: access to financial services, usage of these services, and the quality of services available. Access refers to the availability of financial services, such as the presence of bank branches and ATMs. Usage measures the extent to which people use financial services, such as the number of active bank accounts or the use of credit. The quality dimension assesses the inclusiveness, affordability, and fairness of the financial services available, particularly for disadvantaged and low-income groups.

To construct this financial inclusion index, the study employs Principal Component Analysis (PCA), following the methodology proposed by Cámara and Tuesta. PCA allows for the aggregation of multiple indicators into a single composite measure while preserving the essential dimensions of access, usage, and quality. The data for the various indicators used in this index is drawn from the Financial Access Survey (FAS) conducted by the International Monetary Fund (IMF) and the World Bank's Doing Business database. By combining these variables, the study aims to explore the relationship between financial inclusion and unemployment in developing countries, controlling for other macroeconomic factors such as inflation, economic growth, and education levels. This comprehensive approach provides a deeper understanding of how financial inclusion might influence unemployment outcomes, considering both its direct and indirect effects.

4. RESULTS AND DISCUSSION

The table 1 provides the descriptive statistics for the variables included in the analysis, showing their mean, standard deviation, minimum, and maximum values. The UN variable, which likely refers to unemployment, has a mean value of 8.029 and a standard deviation of 6.021. This indicates that, on average, the unemployment rate across the sample is around 8%, but there is considerable variation, with some observations as low as 0.489 and others as high as 27.447. The FII variable, likely representing foreign institutional investment, has a mean of 0.432 and a standard deviation of 0.184. The values for FII range from a minimum of 0.003 to a maximum of 0.993. This suggests that, on average, foreign institutional investment makes up about 43% of the total, but there is notable variation across the sample, with some periods having very low foreign investment and others having close to full foreign institutional participation. The EDU variable, which likely represents education or education-related spending, has a mean of 105.858 and a standard deviation of 9.943. The values for this variable range from a minimum of 75.4 to a maximum of 134.52. This indicates that education-related spending or index is relatively consistent, with a spread of about 9.9 units between the standard deviation from the mean. The INF, which represents inflation, has a mean of 4.397 and a standard deviation of 4.294. Inflation values range from a minimum of -1.261

to a maximum of 34.28. This shows that while the average inflation rate is around 4.4%, there is significant volatility in inflation, with some periods of negative inflation and others with extremely high inflation.
Finally, the EG variable, likely representing economic growth, has a mean of 1.7045 and a standard deviation of 3.016. The values range from a minimum of -9.442 to a maximum of 15.154. This indicates that economic growth varies considerably across the sample, with some periods experiencing negative growth and others having very high growth rates. Overall, the descriptive statistics show that the sample includes a range of values for each variable, with some variables (like UN and INF) exhibiting considerable volatility, while others (like EDU) have more stable values.

Table 1: Descriptive Statistics

Variables	Mean	Standard deviation	Min	Max
UN	8.029	6.021	0.489	27.447
FII	0.432	0.184	0.003	0.993
EDU	105.858	9.943	75.4	134.52
INF	4.397	4.294	−1.261	34.28
EG	1.7045	3.016	−9.442	15.154

The table 2 presents the Generalized Method of Moments (GMM) results for a model where the unemployment rate is the dependent variable. Each variable's coefficient is accompanied by its standard error in parentheses, and the significance levels are indicated by asterisks. The coefficient for UN (unemployment rate) is 0.526, and it is statistically significant at the 1% level, as denoted by the three asterisks. This suggests that there is a positive relationship between the unemployment rate and itself, implying that changes in the unemployment rate are positively correlated with future unemployment levels. The coefficient for FII (foreign institutional investment) is -2.208, and it is also statistically significant at the 1% level. This indicates a negative relationship between foreign institutional investment and the unemployment rate, suggesting that higher foreign investment is associated with a reduction in unemployment, likely due to increased economic activity and job creation driven by foreign capital. The coefficient for EDU (education) is -0.0434, which is statistically significant at the 1% level. This negative relationship suggests that higher levels of education (or education-related spending) are associated with lower unemployment rates. It implies that an increase in educational attainment or investment in education could potentially reduce unemployment, possibly by increasing the employability of the workforce. The coefficient for INF (inflation) is -0.00824, which is statistically significant at the 5% level, as indicated by two asterisks. This negative coefficient suggests that higher inflation is associated with a slight decrease in unemployment. This result could reflect a Phillips curve-type relationship, where inflation and unemployment are inversely related in the short run, though the effect is quite small. The coefficient for EG (economic growth) is -0.120, and it is statistically significant at the 1% level. This suggests a strong negative relationship between economic growth and unemployment, meaning that higher economic growth is associated with lower unemployment. This finding is consistent with the idea that growing economies tend to create more jobs and reduce unemployment.

Table 2: GMM Outcomes

Variables	Unemployment rate
UN	0.526***
	(0.0107)
FII	−2.208***
	(0.507)
EDU	−0.0434***
	(0.00464)
INF	−0.00824**
	(0.00382)
EG	−0.120***
	(0.00950)
Constant	9.548***
	(0.564)

The constant term is 9.548 and is statistically significant at the 1% level. This represents the baseline unemployment rate when all the explanatory variables are held constant. The positive constant suggests that even without the effects of foreign investment, education, inflation, or economic growth, the unemployment rate is expected to be at a certain level, which could be influenced by other factors not included in the model. The GMM results suggest that foreign investment, education, inflation, and economic growth all have statistically significant relationships with unemployment, with foreign investment and economic growth having particularly strong negative effects on unemployment. The results emphasize the importance of these variables in reducing unemployment and improving labor market outcomes.

5. CONCLUSIONS

This paper also examined the impact of financial inclusion on the unemployment rate in developing countries using a dynamic panel approach. The results provided robust evidence indicating that as the level of financial inclusion increases, the unemployment rate tends to decrease. This suggests that promoting greater access to and usage of financial services can play a significant role in improving labor market outcomes in developing economies. Given that high unemployment rates are a persistent challenge for many developing countries, it is crucial for governments and central banks to place greater emphasis on enhancing financial inclusion. It is not just about increasing access to financial services but also ensuring that these services are effectively utilized. The study's findings underscore the importance of expanding both the reach and the usage of financial services in order to achieve substantial reductions in unemployment. In the long term, increasing the degree of financial inclusion could help developing countries reach important economic milestones, including higher employment rates and stronger overall economic growth. The implications of this research can guide policy reforms in the financial sector of developing countries. Specifically, it highlights the direct relationship between financial inclusion—especially the access and use of banking services—and unemployment levels. Governments have a vital role in promoting financial inclusion, which should be integrated into national development strategies. This involves not only expanding the availability of financial services but also creating a regulatory and legislative environment that supports these efforts. Additionally, international financial organizations can play a key role in facilitating the exchange of experiences and best practices among countries to foster financial inclusion globally. One of the foundational steps in promoting financial inclusion is enhancing financial literacy. By increasing individuals' understanding of financial concepts and tools, financial literacy enables people to make informed decisions regarding borrowing, saving, investing, and managing their expenditures. Without adequate financial literacy, even broadening access to financial services may not yield significant benefits for individuals or the economy at large. Therefore, it is essential for governments to prioritize financial literacy programs, as they serve as a critical tool for expanding financial inclusion and maximizing its potential impact on economic outcomes like employment.

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