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Decent work, financial inclusion, and economic growth: Analysis under the SDG 8

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Abstract

We investigate the potential influence of decent work and financial inclusion on economic growth, aligning our analysis with the United Nations Sustainable Development Goal 8 (SDG 8). Analyzing a diverse set of 26 low-income, 20 middle-income, and 15 high-income countries, we utilize a dynamic fixed-effect panel data approach and apply the Generalized Method of Moments from 2010 to 2021. The findings highlight that favorable conditions for decent work and increased access to digital financial services contribute positively to economic growth. The synergistic effect of these SDG 8 components is notably pronounced in high-income countries, with greater potential for elevated economic growth rates. Conversely, no discernible impact is observed on the economic growth of low-income countries. The results for middle-income countries present nuanced coefficient outcomes, offering a more intricate interpretation of their economic dynamics. An extensive impulse-response analysis, conducted using a Panel Vector Autoregression model, demonstrates distinct impacts of shocks related to decent work and financial inclusion across various income categories of countries. Our findings pass various robustness checks, affirming their reliability and suggesting significant policy implications for recognizing the crucial role of decent work and financial inclusion in fostering economic growth.

Keywords: Decent work, Financial inclusion, Digital, Economic growth, SDG 8

1. Introduction

The Global Sustainable Development Agenda 2030, adopted by all United Nations Member States in September 2015, strives to promote decent work (DW) and economic growth (EG), with the International Labor Organization (ILO) playing a crucial role in advocating these objectives [1]. DW is defined as employment conducted under the principles of liberty, fairness, safety, and human dignity, which is essential for the well-being of individuals and serves as a crucial driver for sustainable EG. Access to decent and adequately

compensated employment enables individuals to engage in consumption and investment to their nations' economic development and is also vital for global prosperity. However, the coronavirus pandemic has hindered the pursuit of these critical objectives, causing a considerable contraction in the global economy of approximately 3.5% in 2020. This downturn, the most severe since the Great Depression, resulted in a $9.2 trillion loss in global output by 2021, affecting trade, tourism, and production worldwide [2].

In response to the imperative need for social distancing and avoiding direct contact, nations turned to alternatives for traditional economic activities. A notable shift was the rapid adoption of digital financial services, or financial inclusion (FI), emerging as a pivotal strategy during the pandemic. Governments and businesses increasingly embraced digital platforms, leading to a surge in online transactions, e-commerce, and contactless payments. The accelerated development of digital financial services not only provided a safer means of economic engagement during the pandemic but also laid the groundwork for a more resilient and technologically advanced financial landscape in the post-pandemic era [3].

Our study delves into the synergies among access to digital financial services, DW, and EG, under SDG 8, which emphasizes «sustained, inclusive, and sustainable EG, full and productive employment, and DW for all». Specifically, we focus on the potential success of the interplay between DW and access to digital financial services in promoting EG. By examining this dynamic relationship, we highlight how the synergy between these factors can be a powerful driver for sustainable economic development.

The theoretical and empirical literature concerning the intersection of DW, FI, and EG is limited, with some studies only addressing two out of the three interconnected dimensions. These studies can be categorized into three strands. The first investigated the relationship among financial development, FI, income inequality, and poverty in emerging economies [4] [5]. These studies offer insights into how FI might contribute to addressing socioeconomic disparities. The second group of studies examines the broader association between FI and various determinants of EG, including productivity, social and human capital, and firms' performance [6] [7] [8] [9]. This line of inquiry provides an exhaustive insight into the multifaceted impacts of FI on economic development. The third strand introduces the dimension of DW in conjunction with FI, although the effect on EG remains unassessed [10] [11] [12]. Despite the valuable exploration of the link between FI and DW, the literature lacks a cohesive examination of these aspects alongside EG. A notable gap exists in the literature where few studies explore FI, DW, and EG concurrently. Our study addresses this void by investigating the interrelated dynamics among these three elements. We aim to enhance understanding of the interplay between FI, DW, and EG. We aim to provide a more comprehensive perspective on the connections among these critical components of socioeconomic development.

Examining the effect of FI and DW on EG in both theoretical and empirical studies uncovers several pivotal concerns. Firstly, variations in the metrics used to measure independent variables (FI and DW) and the dependent variable (economic growth) contribute to the complexity of these studies. Secondly, inconsistencies emerge in selecting countries examined in prior studies, necessitating distinct considerations for low-income countries versus high-income ones. Lastly, diverse estimation methods, incorporating various approaches, may result in disparate estimates, highlighting the need for additional categorization based on these methodological differences. In addressing these challenges, future research should focus on refining measurement techniques and developing standardized methodologies to enhance the reliability and comparability of findings in this crucial area of study.

This study advances the current literature by addressing the challenge of quantifying FI and DW. We leverage SDG 8, a pivotal component of the Sustainable Development Agenda 2030, to address this. By quantifying the challenges related to FI and DW, our research contributes to the existing body of knowledge. Incorporating SDG 8 indicators into our empirical model aligns our study with globally recognized benchmarks for sustainable economic development. Unlike prior research, our study focuses on digital financial services, a subset of FI crucial in enhancing employment quality according to international labor standards. We aim to unravel the intricate dynamics between access to digital finance and quality employment, thereby exploring their combined

impact on economic growth. Therefore, our study hypothesizes that the synergistic effect of financial services access and DW availability significantly contributes to sustained, inclusive, and sustainable economic growth in both high-income and middle-income countries. However, we anticipate that this impact may vary based on the level of economic development.

Our empirical analysis builds upon established literature on endogenous growth, referencing influential works such as [13] [14] [15]. Expanding the existing framework, we incorporate key variables, namely decent work and financial inclusion, into an endogenous growth model. To assess the relationship between these variables, we examine a diverse set of countries, including 26 low-income, 20 middle-income, and 15 high-income nations. Employing a dynamic fixed-effect panel data approach, we apply the Generalized Method of Moments from 2010 to 2021 to address potential endogeneity issues. Our analysis further involves evaluating the impact of shocks on DW and FI indicators. To unravel the interdependencies and causal relationships among these factors, we employ a Panel Vector Autoregression (PVAR) model. This model incorporates our key sustainable development variables and the GDP growth rate, allowing us to explore the intricate relationships. The extraction of impulse response functions enables us to quantify and visualize shocks' short- and long-term effects on decent work and financial inclusion in the context of endogenous growth.

Our findings underscore the significance of cultivating an environment that encourages employees to engage in productive activities while ensuring favorable working conditions. Additionally, enhanced access to digital financial services contributes to more efficient financial transactions, fostering convenience and diminishing barriers to financial inclusion. Ultimately, this positively influences economic growth. This study unveils a pivotal discovery, particularly in the interaction terms involving our primary variables of interest—decent work and financial inclusion indicators. These interaction terms exhibit more robust and statistically significant coefficients than standalone indicators. The synergistic effect of decent work and financial inclusion is particularly pronounced in high-income countries, suggesting a greater potential for elevated economic growth rates. However, no discernible impact is observed on the economic growth of low-income countries. Furthermore, our impulse response analysis following the PVAR model reveals a contrast between low- and high-income countries. This analysis provides valuable insights into the distinct economic dynamics associated with shocks in decent work and financial inclusion, particularly concerning the proportion of informal employment. The implications highlight the varying impacts of these factors on economic growth in different income groups, offering valuable considerations for policymakers and practitioners aiming to foster sustainable and inclusive economic development.

The paper is organized as follows: Section 2 offers a comprehensive literature review. Section 3 delineates the research method, encompassing descriptions of data, variables, and empirical methodology. Section 4 presents the results obtained, accompanied by a discussion of these findings and their robustness checks. Finally, Section 5 provides the conclusion.

2. Literature review

Numerous studies consistently underscore the positive impact of respecting DW conditions or independently developing digital financial services on EG. Within this literature, most studies often delve into related impact connections, exploring their influence on variables like poverty, inequality, and firm performance. Intriguingly, examining the interplay between DW, FI, and EG is notably scarce, if not virtually nonexistent. Among the limited studies closely aligned with our research, [1] examined how 5G technologies influence DW and EG under the principles of SDG 8. Their findings underscore the pivotal role of DW and EG as essential components for the sustainable advancement of a nation. While their emphasis lies on the 5G network rather than access to digital financial services, the authors posit that the 5G network substantially contributes to attaining SDG 8. They argue that the 5G network's provision of quicker and more dependable connectivity creates new prospects for operational efficiency, innovation, and employment generation, thereby fostering advancements in sustainable development.

We organize the studies relevant to our paper into three primary categories. The first group explores the connection between FI and the issues of inequality and poverty. For example, [4] delve into the relationship between financial development, encompassing elements of FI and income inequality in emerging economies. Similarly, research explores how FI affects the reduction of poverty and income inequality in emerging countries, contributing valuable insights to this strand of research [16].

The second group of studies focuses on the correlation between FI and key determinants of EG, such as productivity, social and human capital, and firms' performance. Researchers investigated the linkages between FI, human capital progress, and EG in developing countries, offering valuable insights into the multifaceted nature of these relationships [6]. In a comprehensive review, researchers analyzed recent empirical evidence, shedding light on the intricate association between FI and inclusive EG and highlighting the impact of access to financial services on various economic indicators [7]. Research contributes to this strand by exploring how FI influences productivity and long-term EG in emerging economies [17]. Similarly, [8] emphasized the interconnected role of FI and social capital in promoting economic development. Meanwhile, [9], leveraging data from the World Bank Enterprise Survey, focuses on firms' performance by examining the effect of FI and access to finance.

While jointly exploring the aspects of DW and FI, the third group of studies refrains from specifically assessing their combined impact on EG. Researchers initiate this exploration by further investigating the social performance of microfinance institutions, emphasizing their role in contributing to DW [6]. The study considers the intertwined association between FI and the outcomes related to DW. Research extends this line of inquiry by investigating the impact of FI on entrepreneurship and employment [10]. They explore how increased access to finance can stimulate entrepreneurial activities and create job opportunities, highlighting the broader economic implications of FI beyond the microfinance sector.

Moreover, international financial organizations contribute significantly by preparing reports elucidating the global linkage between DW and FI. For example, the World Bank reports comprehensively analyze how enhanced access to financial services can foster job creation and quality employment in Europe and Central Asia, broadening the global implications of the relationship between FI and DW. In the African context, examining the correlation between FI and sustainable employment, mainly focusing on poverty eradication, this study adds a regional perspective to the global discourse on FI and its impact on DW [11]. Researchers also contributed to understanding the digitalization-driven FI landscape [18]. By investigating its implications for public sector banks in India and the socially marginalized segment of Indian society, they assess the overall socioeconomic well-being. The results of this study suggest that digitalization has only marginally promoted FI despite banks' efforts to enhance financial penetration, revealing the complex dynamics involved in achieving inclusive EG. The author emphasizes the importance of sustainable and responsible financial practices and lays the groundwork for understanding the interconnected nature of these dimensions [12].

In summary, this literature review contributes to constructing a comprehensive framework elucidating the interplay between DW and FI and their collective impact on EG. The studies examined within this review offer various measures for evaluating DW conditions and access to digital financial services. Notably, these studies employ diverse methodologies and approaches, enriching our understanding of the nuanced relationships between these dimensions. Our study builds upon this literature by anchoring itself on the SDG 8 indicators and employing robust empirical methodologies. Through our research, we aim to illustrate and deepen the understanding of the intricate interaction between DW and FI, specifically delineating their combined effects on EG rates across different income categories of countries.

The literature review provides a rich foundation for understanding the relationship between DW, FI, and EG. While prior studies have explored various facets of FI and its impact on inequality, poverty, and firm performance, there's a notable gap in examining the combined effects of DW and FI on EG. The reviewed literature offers insights into the individual contributions of DW and FI to economic development but lacks a comprehensive understanding of their joint influence. Our empirical analysis builds upon this gap by integrating

the concepts of DW and FI into a unified framework grounded in the context of the Sustainable Development Goal (SDG 8). Drawing on established models of economic growth and incorporating key variables related to DW and FI, our study aims to elucidate the interconnected nature of these dimensions and their collective impact on EG.

By extending Barro's endogenous growth model and incorporating proxies for DW and the digitalization of financial services, our analysis seeks to quantify the combined effect of these factors on GDP growth. Specifically, we explore how improvements in DW conditions and increased access to digital financial services influence EG rates across different income categories in countries. Furthermore, our study acknowledges and addresses the methodological challenges inherent in estimating models like Equation 2, particularly regarding the potential endogeneity of explanatory variables, such as the number of automated teller machines (ATMs) per 100,000 adults. We adopt the Generalized Method of Moments (GMM) approach to mitigate this endogeneity issue, aligning with previous research methodologies in the literature on EG.

By bridging the gap between the literature review's theoretical insights and our empirical analysis, our study aims to contribute to a more comprehensive understanding of the interplay between DW, FI, and EG. Through rigorous empirical investigation, we seek to provide policymakers with actionable insights to formulate targeted strategies that promote sustainable and inclusive economic growth in alignment with the objectives of SDG 8.

3. Research method

3.1. Data and variables

The standard explanatory variables for the GDP growth rate are well-established within the framework of neoclassical growth theory. Consistent with the approach taken by [14], our model incorporates various EG factors, including government consumption (CONS), an indicator measuring adherence to the rule of law (RULE), an index of international openness (IO), and the inflation rate (INF). Furthermore, the model encompasses additional variables such as global investment (INV), terms of trade (TRADE), and fertility rate (FERT).

In our study, we explore the intricate relationship between the digitalization of financial services and measurements of DW, delving into the nuanced choices made by academics. These decisions, often influenced more by data availability than by considering their efficacy as regulatory measures, set the stage for a comprehensive examination. Previous studies have utilized various measures to assess advancements in digital financial services, from digital transaction volume to metrics such as mobile app downloads and usage, online banking registrations, and digital payments and transfers. Similarly, evaluating DW involves considering a diverse set of proxy measures that collectively capture the quality and well-being of employment. Factors such as employment security, indicators related to collective bargaining, gender equality, and environmental sustainability are encompassed in this assessment, contributing to a holistic understanding of DW. The amalgamation of these considerations lays the foundation for a significant discussion between academics and policymakers regarding FI, DW, and optimal measurement approaches.

Our study makes a meaningful contribution through the meticulous definition and construction of variables, specifically emphasizing the digitalization of financial services. This focus grounds our work in alignment with the guiding principles of SDG 8. The commitment to these principles of SDG 8 serves as the foundational framework for our empirical analysis, with intricate alignment to designated targets and indicators, including 8.2.1, 8.3.1, 8.6.1, 8.10.1, and 8.10.2. To enhance clarity and reference, detailed definitions of these indicators and their corresponding targets are presented in Table 1. Integrating empirical analysis with the broader objectives of sustainable progress enriches the ongoing discourse, contributing to academic understanding and policy formulation. The data supporting these indicators are systematically gathered from diverse and reputable sources, leveraging datasets from the Global SDG Database, ILO Dataset, International Monetary Fund's Financial Access Survey, World Bank's World Development Indicators database, World Economic Forum's

Global Competitiveness Report, the World Payments Report, and internal datasets obtained from official organizations within each respective country. This comprehensive data collection strategy ensures the robustness and reliability of our study, facilitating a nuanced exploration of the intersections between digital financial services, DW, and global development goals.

Table 1. SDG 8 Indicators proxying DW and FI

	SDG 8: Decent Work and Economic Growth "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all."				
	Dependent variable: GDP growth rate				
	Key Independent variables				
	Decent work				
Target	Indicator associated		Symbol	Expected sign	Sources
8.2: "Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high-value added and labor-intensive sectors."	Indicator 8.2.1	"annual growth rate of real GDP per employed person"	gdp_ep	positive	WDI – World Bank
8.3: "Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services."	Indicator 8.3.1	"proportion of informal employment in total employment by sector and sex"	ie	negative	ILO Dataset
8.6: "By 2020, substantially reduce the proportion of youth not in employment, education or training.	Indicator 8.6.1	"proportion of youth (aged 15–24 years) not in education, employment or training"	neet	negative	ILO Dataset
	Digitalization of financial services				
8.10: "Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance, and financial services for all."	Indicator 8.10.1	"number of automated teller machines (ATMs) per 100,000 adults"	atm	positive	International Monetary Fund, Financial Access Survey
	Indicator 8.10.2	"proportion of adults (15 years and older) with an account at a financial institution or mobile-money-service provider, %"	mms	positive	United Nations dataset

The selected study period, ranging from 2010 to 2021, encompasses 61 countries, representing a spectrum of income levels categorized as low, middle, and high. This timeframe holds significant global relevance, capturing a dynamic era characterized by substantial technological advancements and shifts in the global economic landscape. Including countries with different income levels facilitates a thorough analysis spanning various economic conditions and developmental stages. Furthermore, it offers valuable insights into FI, DW, and EG interplay. Table 2 presents the sample country under consideration. To gain a comprehensive understanding of the variables used in our baseline model, Table 3 offers a detailed overview. Subsequently, in Table 4, we present the corresponding summary statistics for these variables.

Our objective is to visually depict the fluctuations in proxies for DW and the digitalization of financial services in correlation with changes in the GDP growth rate. Figures 1 and 2 provide graphical representations of these variables for 15 selected low-income and 15 high-income countries, offering a comparative analysis of their dynamics.

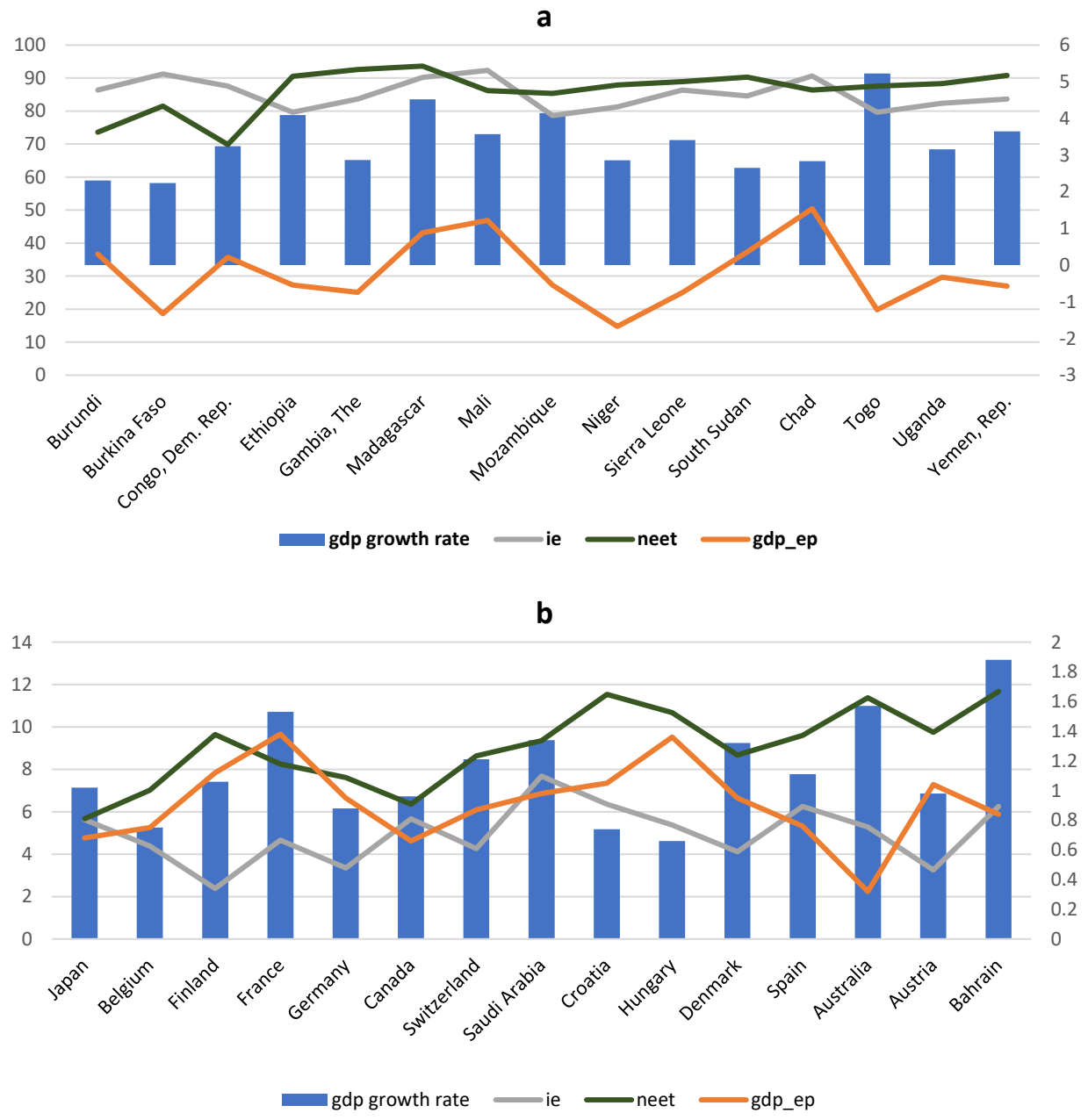


Figure 1. Decent work and economic growth - (a) for low-income countries and (b) for high-income countries

Figure 1 illustrates the three indicators of decent work (on the left axes) in conjunction with the GDP growth rate (on the right axes) for both low-income countries (a) and high-income countries (b). The figure presents the average values of these variables for each country spanning 2010 to 2021. Figure 1 reveals that high-income economies exhibit a higher proficiency in GDP per employed person than their low-income counterparts, highlighting the effective allocation of the labor force in high-income countries, which contributes significantly to their GDP.

Furthermore, the disparities between high-income and low-income countries become apparent in their rates of "proportion of informal employment in total employment by sector and sex" (ie) and "proportion of youth (aged 15–24 years) not in education, employment, or training" (neet). High-income countries display contrasting trends characterized by lower rates. For instance, Saudi Arabia records the highest percentage of 'ie' at 7.68%, which is still lower than the lowest observed in low-income countries, such as Mozambique, at 78%. Examining these patterns in ‘ie’ and ‘neet’ indexes, it becomes evident that high-income countries generally exhibit a greater prevalence of DW. The linkage between a low "percentage of informal employment (ie) and youth not in education, employment, or training" (neet) with high GDP growth rates suggests a transition towards formalization and increased educational opportunities. Robust economies generate formal job opportunities, diminishing reliance on informal employment. Investments in education and vocational training contribute to lower ‘neet’ rates as youth actively engage in education or employment. Government policies advocating for formalization and fostering a conducive entrepreneurial environment further bolster this trend. In high-income countries, focusing on global competitiveness emphasizes skilled labor and structured economic systems, collectively contributing to a more organized labor market and fostering EG.

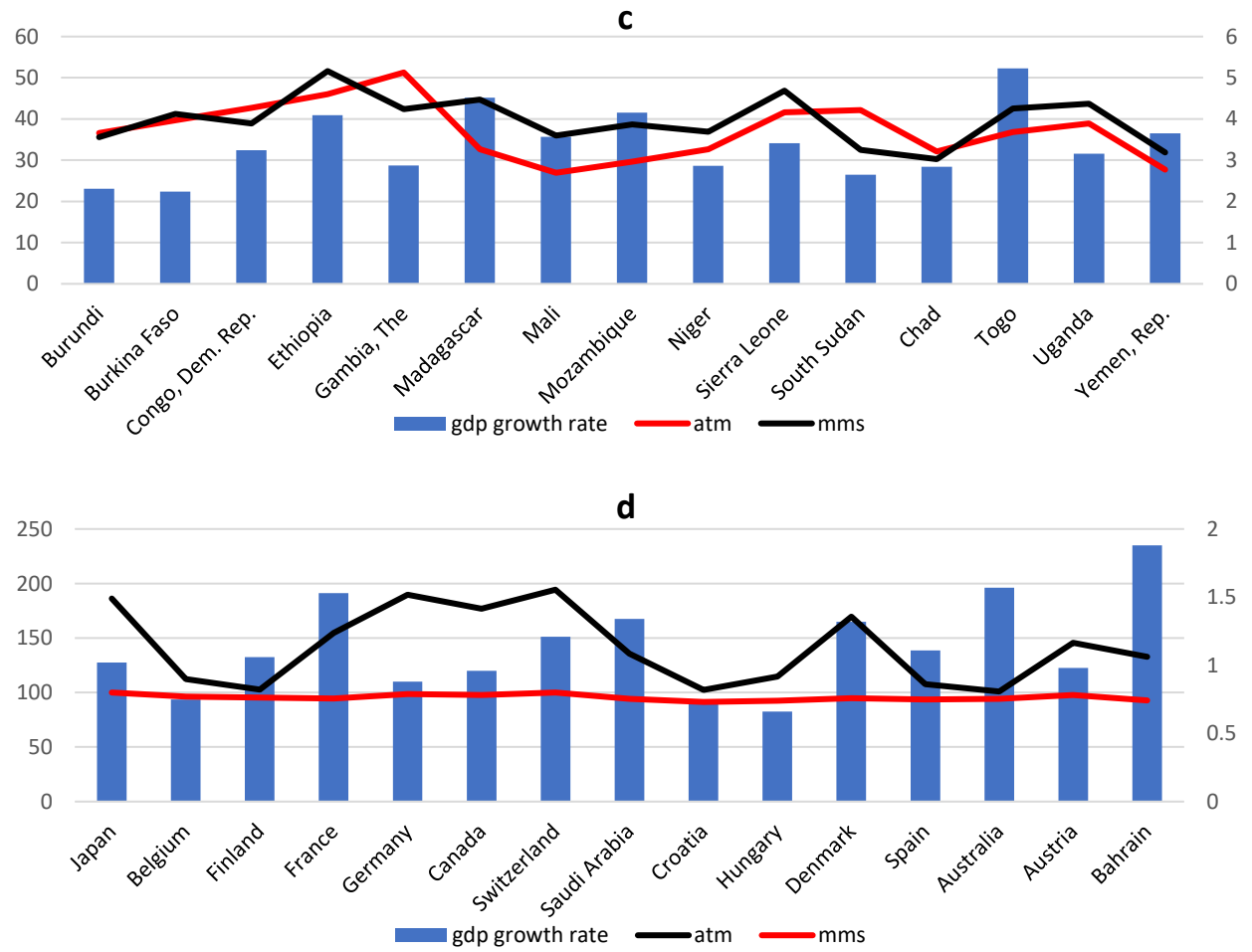


Figure 2. Digitalization of financial services and economic growth - (a) for low-income countries and (b) for high-income countries

Figure 2 offers a comprehensive view of trends in two key indices serving as proxies for the digitalization of financial services: the "number of automated teller machines (ATMs) per 100,000 adults" and the "proportion of adults (15 years and older) with an account at a financial institution or mobile-money-service provider, %". These indices are correlated with the GDP growth rate in low and high-income countries, designated as c and d, respectively.

As expected, high-income countries demonstrate advancements in both indices, indicating a higher degree of digitalization in their financial services than their low-income counterparts. The disparities between the two groups are starkly evident, exemplified by Switzerland boasting 194 ATMs per 100,000 adults, while Yemen lags with only 27 ATMs, highlighting a significant contrast in adopting digital financial services. Distinct patterns between low-income and high-income countries underscore the pivotal role of digitalizing financial services in promoting EG. In high-income nations, an advanced digital financial infrastructure, as reflected in metrics like the number of ATMs and the proportion of adults with financial accounts, facilitates efficient transactions, encourages investment, and enhances overall economic productivity. The accessibility and convenience of digital financial services contribute to increased FI, paving the way for more significant participation in formal economic activities. However, the disparities are notable in low-income countries with limited access to digital financial tools. Closing this gap becomes essential for these countries to unlock their full economic potential, providing avenues for greater FI, improved efficiency, and participation in the global economy.

3.2. Empirical methodology

Our empirical analysis draws upon the established literature on EG [13] [14] [15]. In particular, we align our approach with [14], who extended an endogenous growth model within the neoclassical framework.
To succinctly capture the essence of this model, [14] presents a simplified equation:

$$Dy = F(y, y^*) \tag{1}$$

where Dy represents the per capita output's growth rate, "y" denotes the output per capita level, and y* signifies the long-term or desired output per capita. In a framework that considers technological advancements and human capital, the output per capita variable expands its definition to include both human and physical capital and alternative factors utilized in the manufacturing process. Our extension of [14] model integrates key variables as outlined in Table 1; gdp_ep, ie, neet, which serve as proxies for DW, and atm, mms, acting as proxies for the digitalization of financial services. Initially, we analyze these variables independently.

Exploring the intricate relationships within a specific SDG, such as SDG 8, focused on DW and EG, is crucial for comprehending its multifaceted nature. By scrutinizing the interconnected components within this goal—such as promoting inclusive employment, enhancing access to digital financial services, and fostering sustainable economic practices—we can evaluate their collective influence on EG. A nuanced understanding of these interdependencies empowers policymakers to formulate targeted strategies that not only advance SDG 8 but also contribute synergistically to broader economic development, ensuring a more complete and impactful approach to achieving sustainable and inclusive growth. The interaction between different actors, with their unique characteristics, objectives, and interests, addresses multiple SDGs [19]. Notably, the scarcity of studies incorporating these interaction terms poses challenges in comprehending the pathways through which DW practices and access to digital financial services influence EG [20].

Acknowledging this gap, we proceed to the second stage, exploring the interaction between our indexes of DW and FI. This exploration aims to assess their combined impact on EG. The extended form of the model, as presented in Equation 1, is as follows:

$$\begin{aligned}\text{GDP\_growth}_{i,t} = {} & \alpha_0 + \beta_1 GDP\_growth_{i,t-1} + \beta_2 DECENT_{i,t} + \beta_3 DIG\_FIN_{i,t} + \beta_4 DECENT_{i,t} \times \\ & DIG\_FIN_{i,t} + X_{i,t} + \delta_i + \varepsilon_{i,t}\end{aligned} \tag{2}$$

where $GDP\_growth_{i,t-1}$ describes the short-term autoregressive patterns exhibited by the dependent variable ($GDP\_growth_{i,t}$). 'DECENT' serves as a vector representing DW, incorporating 'gdp_ep', 'ie', and 'neet', while 'DIG_FIN' denotes the digitalization of financial services through 'atm' and 'mms'. The vector 'X' encompasses standard explanatory factors frequently encountered in EG theory, including 'CONS', 'RULE', 'IO', 'INF', 'FERT', 'INV', and 'TRADE'. δ represents a country-specific effect. The term 'ε_{it}' denotes the error term.

The challenge inherent in estimating models like Equation 2 is navigating the potential endogeneity of explanatory variables, notably the "number of automated teller machines (ATMs) per 100,000 adults", which could be influenced by the dependent variable (GDP growth rate). Failing to address endogeneity may lead to biased upward estimates attributed to reverse causality. In the context of growth regressions involving the digitalization of financial services, the endogeneity issue manifests as the positive influence of financial services development on EG is reciprocated by the advantageous effects of higher growth rates on access to digital financial services. Extended periods of heightened EG are pivotal in increasing per-capita income and fostering investments in innovative financial technologies [21]. This cyclical progression creates what is commonly known as a 'virtuous circle.' If this scenario holds, it could introduce an upward bias in the reported estimates of the growth impact associated with education and skills.

The Generalized Method of Moments (GMM) approach tackles the endogeneity problem by utilizing standardized instrumental variables closely correlated with human capital but unrelated to the regression's residuals (error terms). These standardized instrumental variables incorporate previous (lagged) values of endogenous predictors, specifically human capital determinants, as [22] recommended and are widely applied within the literature on EG. Effectively utilizing the model's linear moment restrictions, GMM estimation is an effective instrumentation method, especially when data for endogenous variables are scarce. Our study aligns with previous research by employing the GMM estimator to address the endogeneity problem [23] [24] [25].

4. Results and discussion

Table 5 presents the results of this analysis, where we initially regress equation 2 solely on the 'DECENT' variables (column 1). Subsequently, we introduce the FI variables ('DIG_FIN') in the second step (column 2), and finally, we incorporate the interaction term between DW and FI in the last step (columns 3, 4, and 5).

4.1. Results

The results from column 1 indicate a statistically significant and negative impact of 'ie' and 'neet' indexes on EG, underscoring those unfavorable working conditions, marked by the proliferation of informal employment and the presence of youth not in education, employment, or training, contribute to a reduction in EG. The term "decent work" pertains to employment characterized by productivity, security, fair compensation, and opportunities for personal development and social integration. Poor working conditions harm EG, reducing efficiency, diminishing staff morale, and higher turnover rates. Facing hazardous environments, long working hours, or inadequate compensation decreases workers' job satisfaction and commitment [26]. Consequently, this decline in commitment and satisfaction results in reduced efficiency and output, ultimately impeding productivity. Additionally, elevated turnover rates result in higher company recruitment and training expenses. The negative cycle perpetuates as the workforce becomes less engaged, hindering innovation and economic progress [27].

Therefore, promoting DW conditions is crucial for fostering a productive and sustainable economy. Accordingly, the statistically significant and positive coefficient of gdp_ep affirms that a higher real GDP growth rate per employed person contributes significantly to a country's EG. These findings highlight the importance of having productive employees working under decent conditions, underscoring the crucial link between a higher growth rate of real GDP per employed person and a country's economic prosperity [28]. Thus, creating an environment that ensures decent working conditions becomes imperative for sustaining and enhancing economic well-being. These findings support our expectations, emphasizing the importance of

fostering an environment where employees engage in productive activities and operate under favorable working conditions.

Examining the outcomes related to FI variables, 'atm' and 'mms,' which serve as proxies for access to digital financial services, column 2 reveals that an expansion of ATMs and the growing number of adults who possess accounts with financial institutions or make use of mobile money services play a pivotal role in fostering EG. The coefficients for both variables are statistically significant and positive. Increased access to digital financial services enhances the efficiency of financial transactions, promoting convenience and reducing barriers to FI [29]. With increased individual capacity to engage in banking activities, businesses can thrive through improved liquidity, reduced transaction costs, and increased consumer spending. Such heightened financial accessibility facilitates capital circulation, encouraging investments and entrepreneurial activities. Consequently, the positive impact on EG is realized through enhanced financial connectivity, efficiency, and inclusive participation in the economic landscape [30].

This study highlights a pivotal finding, particularly in the interaction terms involving our primary variable of interest—DW and FI— indicators. Columns 3, 4, and 5 reveal more robust and statistically significant coefficients than standalone indicators. For instance, the estimates indicate that enhancing the interaction terms ‘ie*atm’ and ‘ie*mms’ by one standard deviation results in a 45-basis point and 82-basis point rise in GDP growth rate, respectively. The positive nature of these interaction term coefficients suggests that the synergy between productive employment and access to digital financial services positively influences EG. DW, which includes productive, secure, and fairly compensated employment, contributes significantly to economic well-being and job satisfaction. When combined with access to digital financial services, this synergy fosters enhanced financial efficiency, reduced transaction costs, and improved FI [31]. Notably, the results for the second analysis period (2016-2021), reported in column 5, offer a clearer depiction of this combined impact compared to the earlier period (column 4). The dynamic interplay between DW and access to digital financial services has become a potent force driving EG in recent years. This synergy enhances individual financial well-being and contributes to economic efficiency and resilience. In the evolving landscape of the digital era, the symbiotic relationship between DW and access to digital financial services emerges as a key catalyst for fostering inclusive EG and development [32].

When delving into the standard determinants of EG, most coefficients related to these variables conform to the patterns observed in the existing empirical literature on EG. Nevertheless, variations are noticeable across diverse model specifications. Notably, the lagged dependent variable exhibits a statistically significant and positive coefficient. This finding implies a considerable persistence effect, signifying that past values of the dependent variable exert a notable influence on its current values.

In the following phase of our analysis, our focus shifts to evaluating the impact of our main variables, DW and FI, while considering the income levels of the countries in our sample. The regression equation 2 results are presented in Table 6, with our sample countries categorized into three groups: column 1 includes low-income countries, column 2 consists of middle-income countries, and column 3 encompasses high-income countries.

The estimations indicate that 'ie' and 'neet' have led to reduced growth rates in low-income countries. However, these factors do not significantly impact the EG of high-income countries. As depicted in Figure 1, low-income countries exhibit high "proportions of informal employment and youth not in education, employment, or training", adversely affecting their EG. In contrast, high-income countries have lower proportions, mitigating adverse EG impacts [33]. Considering individual indicators of FI, the findings reveal that 'atm' and 'mms' positively impact the EG of high-income countries. Notably, these indicators exhibit stronger coefficients than middle and low-income nations in these countries. Conversely, the coefficients are deemed insignificant for low-income countries. As illustrated in Figure 2, this outcome depicts a substantial number of automated teller machines and a noteworthy "proportion of adults holding accounts at financial institutions or mobile money service providers" in high-income countries. Such factors contribute positively to the EG of these nations. In

contrast, low-income countries exhibit lower values for 'atm' and 'mms,' suggesting a lack of significant impact on their EG.

4.2. Discussion

The core findings come to light by examining the interaction between DW and FI indicators. These crucial results unveil the intricate relationship between the quality of employment opportunities, as reflected in DW indicators, and the accessibility to digital financial services. The four interaction terms globally highlight disparities among countries based on income groups. In high-income countries, these interaction terms are statistically significant and positive, featuring more substantial coefficients than their standalone counterparts. In contrast, the interplay between DW and FI shows no discernible impact on the EG of low-income countries. Middle-income countries exhibit more nuanced coefficient results, allowing for a more intricate interpretation of their economic dynamics. For example, the estimates demonstrate that a one-standard-deviation increase in the interaction term ‘ie*atm’ leads to a 15 and 41 basis points increase in the GDP growth rate for middle and high-income economies, respectively (we refrain from calculating the impact on low-income countries due to the statistically insignificant coefficient associated with this interaction term.). This heightened impact of the synergy between DW and access to digital financial services on EG in high-income countries can be attributed to their advanced economic infrastructure and technological readiness.

The robust digital financial ecosystems and well-established labor markets in high-income nations create an environment where the integration of DW practices with digital financial services results in heightened productivity and efficiency. Additionally, the financial sophistication and widespread technology adoption in high-income countries enable a more seamless convergence of these factors, fostering a more significant positive influence on overall EG [34]. In contrast, low-income countries may encounter challenges such as limited access to advanced technologies, lower financial literacy, and less-developed labor markets, constraining how the synergy between DW and digital financial services can drive EG [35].

The results from our analysis carry several policy implications for promoting EG. Firstly, addressing unfavorable working conditions, particularly in low and middle-income countries, is crucial. Policies that enhance job security, fair compensation, and opportunities for personal development can significantly contribute to increased productivity and innovation. Additionally, investments in human capital development through skills training and education are imperative for fostering EG. Secondly, promoting FI is essential, especially in digital financial services. Policies aimed at expanding the accessibility of services like ATMs and mobile money contribute to enhanced financial connectivity, reduced transaction costs, and increased consumer spending. Furthermore, recognizing the amplified impact of the synergy between DW and digital financial services on EG in high-income countries suggests the importance of advancing technological readiness and digital infrastructure. Policymakers should prioritize measures that promote financial literacy and technology adoption in low-income countries, ensuring more inclusive participation in the global economy. Ultimately, policies integrating DW practices with accessible digital financial services can catalyze inclusive EG and development.

5. Robustness check

We perform a series of checks to build a more robust model, delving into alternative measures for the dependent variables—DW and FI. Moreover, we adopt estimation approaches beyond the GMM method to bolster the overall rigor of our analysis. The findings from these robustness checks are detailed in Table 7.

To begin the assessment of the EG metric, we turn to the study by [36]. The study emphasizes that prominent empirical research commonly relies on three main indicators to proxy EG which are GDP growth, per capita GDP growth, and TFP growth. We have employed the GDP growth rate as the dependent variable in our baseline model. Additionally, we examine per capita GDP growth as an alternative measure for our dependent variable (column 1). Transitioning to our second focal point, we delve into DW, exploring a spectrum of diverse metrics. We introduce the Job Quality Index (JQI) in column 2 to offer a different perspective on DW. The JQI evaluates

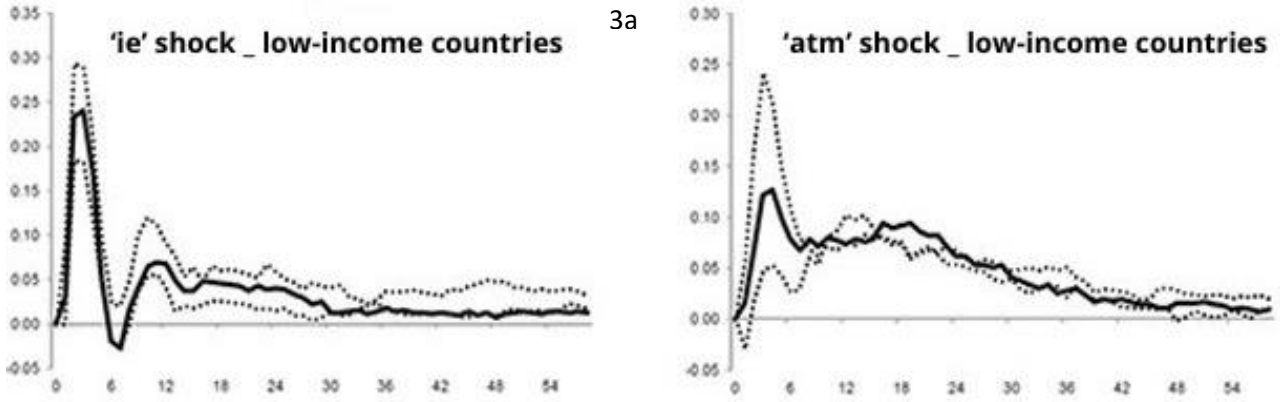
the prevalence of desirable higher-wage/higher-hour jobs compared to lower-wage/lower-hour jobs. This analytical framework resonates with prior research conducted by [37] and [38], providing a solid foundation for our assessment.

Confronting the challenge posed by limited data availability concerning access to digital financial services, we suggest a practical alternative in column 3—the volume of online payment transactions. This metric is a robust indicator, vividly illustrating digital payment methods' acceptance and usage levels. Expanding our evaluation to encompass these alternative measures, we analyze the influence of introducing new variables into our model. Despite the consistently positive effect observed in the relationship between the Job Quality Index and the volume of online payment transactions with EG, it's noteworthy that the coefficients associated with these variables appear to be weaker compared to the initial baseline model. Additionally, the interaction term involving these alternative measures continues to exhibit a positive impact, albeit with reduced coefficients. The implication is that while these alternative variables contribute positively to EG, their overall influence may be somewhat diminished when integrated into the model. Our initial findings persist in transitioning from the GMM approach to Maximum Likelihood Estimation (column 4) and the Anderson-Hsiao estimator (column 5). However, the significance of most coefficients diminishes in these alternative approaches. This decrease in significance may lead us to favor the GMM estimation, which, as we note, addresses the endogeneity problem more effectively.

5.1. Impulse-response analysis

Assessing the impact of shocks on DW and FI indicators is crucial for understanding the dynamics of EG in low-income and high-income countries. In low-income countries, shocks to DW and FI can profoundly affect poverty alleviation and social stability, while in high-income countries, these shocks may influence productivity and income distribution. We can analyze these factors' interdependencies and causal relationships by employing a PVAR (Panel Vector Autoregression) model incorporating key sustainable development variables and the GDP growth rate. Extracting impulse response functions allows us to quantify and visualize shocks' short- and long-term effects on DW and FI on EG. This modeling approach provides valuable insights for policymakers, enabling them to formulate targeted strategies that foster inclusive development and sustainable EG.

Our PVAR model integrates indicator 8.3.1 ('ie' indicator) as a proxy for DW, and incorporates indicator 8.10.1 ('atm' indicator) to represent FI. Detailed information about these indicators is reported in Table 1. Additionally, we introduce the dependent variable 'GDP_growthi,t' to measure the effects of shocks on the dynamics of EG within our model. The ensuing VAR models vividly portray the impulse response of 'GDP_growthi,t' in both low- and high-income countries. This graphical representation in Figure 3 scrutinizes the repercussions of a 10% decrease in shock in the proportion of informal employment ('ie'), contributing to enhancing DW conditions. Furthermore, a parallel analysis is conducted for FI indicators, exploring the impact of a shock characterized by a ten increase in ATMs ('atm'), aimed at improving FI. The horizontal axis signifies quarters, while the vertical axis denotes variations in EG rates. The solid black line illustrates the reaction of the economic growth rate to various shocks.



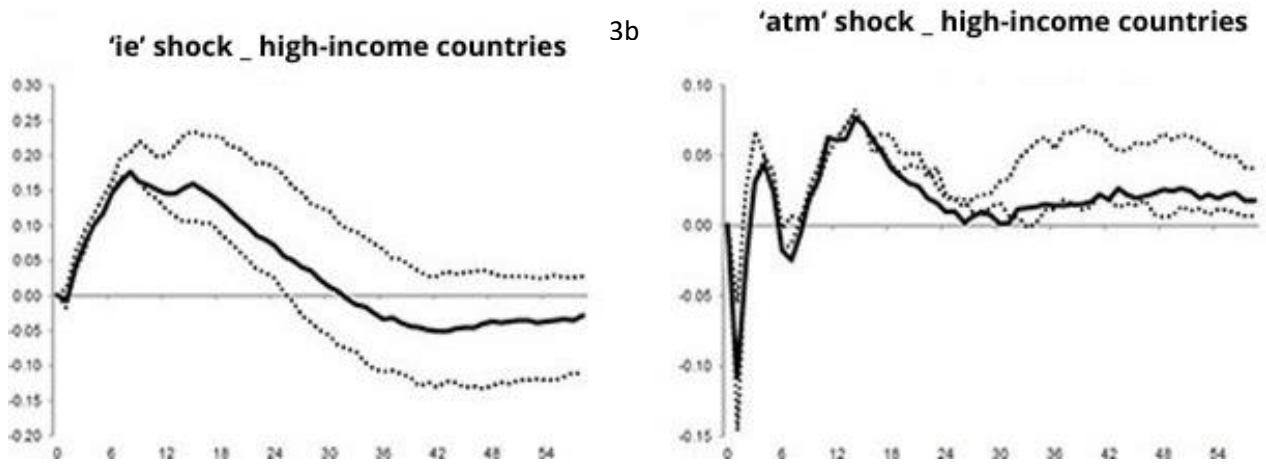


Figure 3. Impulse response analysis, shocks on DW, and FI indicators

The contrast in the impulse-response functions between low- and high-income countries, as illustrated in Figure 3, provides valuable insights into the distinct economic dynamics associated with the 'ie' shock, particularly concerning the proportion of informal employment. In low-income countries, the 'ie' shock generates an immediate positive effect on EG. This initial upswing may be attributed to increased informal economic activities, which often characterize these economies. The surge, however, is short-lived, lasting only three quarters. This temporal nature of the impact suggests that the positive effects of the shock are not sustained over the long term. One plausible explanation could be that the informal sector, while contributing to short-term EG, lacks the stability and resilience to ensure prolonged positive effects. Additionally, structural challenges and limited capacity for formalization in low-income countries may contribute to the brief duration of the surge.

Conversely, high-income countries exhibit a more enduring response to the 'ie' shock, with the positive impact persisting for approximately 30 quarters before diminishing. This suggests that in high-income settings, the proportion of informal employment has a more sustained and lasting effect on EG. In these countries, the informal sector is possibly better integrated into the overall economic structure, contributing consistently to economic expansion [39]. Additionally, high-income countries may have the institutional capacity to adapt and capitalize on the positive aspects of informal employment over an extended period, perhaps through effective labor market policies and social safety nets.

The shock affecting the number of ATMs leads to a sustained increase in EG in low-income countries. Within this context, the EG rate experiences a rise of 0.12% by the third quarter. This sustained effect implies a lasting positive influence, possibly linked to the role of ATMs in enhancing financial accessibility and transactions. The specificity of the impact on ATMs underscores the importance of targeted improvements in economic infrastructure. The time lag between the shock and the noticeable EG suggests a gradual integration of the changes, indicating a complex process. Overall, these observations imply that strategic enhancements to financial infrastructure, such as increasing the number of ATMs, can have meaningful and lasting positive effects on EG in low-income countries.

Unexpectedly, the shock affecting 'atm' in high-income countries leads to an immediate but brief (approximately one-quarter) decline in EG. Following this downturn, a discernible rebound in EG is observed. However, the overall impact of this shock on EG appears to be comparatively weaker when contrasted with its effects in low-income countries. The unexpected nature of this pattern suggests a complex interplay of factors influencing economic dynamics. The transient nature of the decline implies rapid adaptability or resilience in the high-income economy, possibly attributed to effective policy responses or inherent stability. Despite the rebound, the relative weakness of the overall impact, especially when compared to low-income countries, underscores the diversified and robust nature of high-income economies. Further exploration into the factors influencing this weaker impact is warranted, encompassing elements such as advanced financial systems, risk mitigation strategies, and the intricate dynamics inherent to these economies.

6. Conclusion

This research focuses on SDG 8 indicators, specifically DW and FI, assessing their individual and combined influence on EG in low, middle, and high-income countries. The study reveals that conducive conditions for DW and enhanced access to digital financial services positively contribute to EG. This synergistic impact is particularly prominent in high-income countries, showing potential for increased growth rates. Conversely, there is no evident impact on the EG of low-income countries. The results for middle-income countries present nuanced coefficient outcomes, providing a detailed interpretation of their economic dynamics. An in-depth impulse-response analysis employing a PVAR model unveils distinct impacts of shocks related to DW and FI across diverse income categories.

The findings underscore significant policy implications for fostering EG in both low and high-income countries. In low-income countries, prioritizing policies that enhance and formalize DW conditions is crucial. This involves measures to improve job security, fair compensation, and opportunities for personal development. Concurrently, expanding access to digital financial services, such as ATMs and mobile money, can unlock economic potential by promoting FI, reducing transaction costs, and enhancing liquidity. In high-income countries, building on the positive impact of DW conditions is paramount, emphasizing sustained efforts to ensure a productive and satisfied workforce. Simultaneously, further advancements in digital financial infrastructure and technology adoption can amplify these benefits, fostering increased efficiency and connectivity. Policymakers in both settings should recognize the synergies between DW and digital financial services, tailoring strategies to harness these dynamics for inclusive EG and development.

Future research can explore several avenues related to the findings on the role of decent work conditions and access to digital financial services in economic growth. Investigating how improved working conditions contribute to productivity and innovation in low and high-income countries would provide a deeper understanding of causal relationships. Additionally, policymakers can be guided by examining the potential barriers hindering the effectiveness of digital financial services in different economic contexts and proposing targeted solutions to address these barriers. Comparative studies across countries could shed light on the transferability of successful policies and practices. Furthermore, assessing the long-term sustainability and resilience of economic growth resulting from the synergy between decent work and digital financial services would be valuable.

Declaration of competing interest

The authors declare that they have no known financial or non-financial competing interests in any material discussed in this paper.

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Author contribution statement

C.Z. laid the groundwork in the introduction, visually represented the empirical results through figures and tables, and ensured the accuracy of the analysis by proficiently running econometric software. M.A.B. surveyed existing literature, identified gaps crucial for the study, and synthesized the study's significance in the conclusion. A.K.'s role involved data collection and variable analysis, ensuring the empirical foundation of the research. I.Z. developed the methodology, selecting econometric models to analyze the data effectively. H.S. brought insights into the discussion of results, connecting findings back to the research questions.

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Appendices

Appendix A- Table 2. Sample country

Low income	Middle income	High income
Afghanistan	Albania	Australia
Burundi	Argentina	Austria
Burkina Faso	Belarus	Belgium
Central African Republic	Brazil	Bahrain
Congo, Dem. Rep.	China	Canada
Eritrea	Colombia	Switzerland
Ethiopia	Costa Rica	Germany
Gambia, The	Indonesia	Denmark
Guinea-Bissau	Maldives	Spain
Liberia	Mexico	Finland
Madagascar	Montenegro	France
Mali	Malaysia	Croatia
Mozambique	Peru	Hungary
Malawi	Paraguay	Saudi Arabia
Niger	Russian Federation	Japan
Korea, Dem. People's Rep.	El Salvador	
Rwanda	Serbia	
Sudan	Thailand	
Sierra Leone	Türkiye	
Somalia	South Africa	
South Sudan		
Syrian Arab Republic		
Chad		
Togo		
Uganda		
Yemen, Rep.		

Note: These countries are categorized based on the World Bank classification.

Appendix B - Table 3. Variables Description

Variable	Symbol	Description	Sources
Dependent variable			
economic growth	GDP_growth	GDP growth rate	World Development Indicators (WDI)
Independents variables			
Decent work			
SDG8-Indicator 8.2.1	gdp_ep	annual growth rate of real GDP per employed person	WDI – World Bank
SDG8-Indicator 8.3.1	ie	proportion of informal employment in total employment by sector and sex	ILO Dataset
SDG8-Indicator 8.6.1	neet	proportion of youth (aged 15–24 years) not in education, employment or training	ILO Dataset
Financial inclusion			

SDG8-Indicator 8.10.1	number of automated teller machines (ATMs) per 100,000 adults	atm	International Monetary Fund, Financial Access Survey.
SDG8-Indicator 8.10.2	proportion of adults (15 years and older) with an account at a financial institution or mobile-money-service provider, %	mms	United Nations dataset
Determinants of GDP growth			
government consumption	CONS	ratio of government consumption to GDP	WDI
rule of law	RULE	Index measuring adherence to the rule of law	WDI
international openness	IO	ratio of exports plus imports to GDP	WDI
inflation rate	INF	Changes in consumer price indexes	WDI
fertility rate	FERT		WDI
global investment	INV	investment-to-GDP ratio	WDI
terms of trade	TARDE	ratio of export prices to import prices; Index (2010=100)	WDI

Appendix C - Table 4. Summary statistics

Variable	Mean	Std. Dev.	Min	Max
GDP_growth	1.7362	0.1180	-6.58	7.2452
gdp_ep	0.6384	0.1293	-0.75	1.56
ie	38.62	15.3485	2.37	92.68
neet	25.67	18.6557	5.62	93.59
atm	65.37	19.67	26.84	189.67
mms	53.82	22.06	30.25	189.43
CONS	5.5202	0.3364	-1.2535	28.7530
RULE	0.6521	0.2348	0	1
IO	7.0015	2.3270	3.2658	21.6542
INF	4.6135	1.3768	1.135	42.7152
FERT	7.1863	5.5226	2.8261	29.3654
INV	6.0812	2.1358	1.6233	56.4254
TRADE	120.36	15.85	80.45	130.71
ie*atm	25.5210	11.5723	6.2154	53.9425
ie*mms	20.4855	12.1895	5.3764	75.6892
neet*atm	16.4850	18.5126	4.8391	62.3587
neet*mms	13.4852	19.2.37	5.2967	43.9254

Source: author's calculations

Appendix D - Table 5. Decent work, financial inclusion, and economic growth, baseline model

	(1)	(2)	(3)	(4)	(5)
GDP_growth_{t-1}	0.035***	0.021**	0.032**	0.019***	0.022***
	(0.001)	(0.010)	(0.016)	(0.001)	(0.000)
gdp_ep	0.015**	0.017**	0.008*	0.011*	0.076**
	(0.007)	(0.008)	(0.004)	(0.005)	(0.038)
ie	-0.024**	-0.035**	-0.123	-0.094*	-0.011*
	(0.012)	(0.017)	(0.577)	(0.047)	(0.005)

	(1)	(2)	(3)	(4)	(5)
neet	-0.021**	-0.018**	-0.025**	-0.021*	-0.022**
	(0.010)	(0.009)	(0.012)	(0.010)	(0.011)
CONS	0.010*	0.063**	0.021*	0.044**	0.052**
	(0.005)	(0.031)	(0.010)	(0.022)	(0.026)
RULE	0.416*	0.211***	0.401**	0.587**	0.321**
	(0.212)	(0.101)	(0.200)	(0.293)	(0.160)
IO	0.052*	0.014*	0.032*	0.337	-0.141
	(0.026)	(0.007)	(0.017)	(0.511)	(0.073)
INF	-0.024*	0.009**	-0.032	-0.051	0.027**
	(0.012)	(0.004)	(0.411)	(0.110)	(0.013)
FERT	0.042**	0.018*	0.014	0.021*	0.017
	(0.021)	(0.009)	(0.207)	(0.010)	(0.098)
INV	0.193*	0.128*	0.148**	0.087**	0.074**
	(0.098)	(0.065)	(0.074)	(0.043)	(0.037)
TRADE	0.054*	0.025	0.103	0.094*	0.031*
	(0.027)	(0.307)	(0.577)	(0.047)	(0.015)
atm		0.026**	0.025**	0.018*	0.042**
		(0.013)	(0.012)	(0.009)	(0.021)
mms		0.031**	0.021**	0.017	0.011*
		(0.015)	(0.010)	(0.093)	(0.005)
ie*atm			0.039***	0.038**	0.061**
			(0.010)	(0.019)	(0.030)
ie*mms			0.068**	0.087*	0.032**
			(0.034)	(0.043)	(0.016)
neet*atm			0.087	0.094	0.041*
			(0.127)	(0.347)	(0.021)
neet*mms			0.045**	0.018*	0.012**
			(0.022)	(0.009)	(0.006)
R-squared (within)	0.35	0.29	0.42	0.37	0.31
F-test	2.86***	2.17***	3.24***	3.55***	2.38***
# of countries	61	61	61	61	61
# of observations	552	548	537	542	539

Note: Table 5 presents estimates for equation (2), where GDP_growth is the dependent variable. Column (1) reports results using the GMM estimator without including the financial inclusion variables and the interaction terms. Column (2) incorporates the financial inclusion variables, while column (3) presents results for the overall model, including the interaction terms. Column (4) presents estimates for the period 2010-2015. Column (5) shows results for the periods 2016-2021. Significance levels are denoted by ***, **, and *, representing significance at the 1%, 5%, and 10%, respectively.

Appendix E - Table 6. Decent work, financial inclusion, and economic growth - income category countries

	(1)	(2)	(3)
gdp_ep	0.032**	0.019***	0.022***
	(0.016)	(0.001)	(0.000)
ie	-0.058**	0.011*	0.276
	(0.029)	(0.005)	(0.038)
neet	-0.063**	-0.094*	0.511
	(0.031)	(0.047)	(0.985)
atm	0.011	0.034*	0.081**
	(0.360)	(0.017)	(0.040)
mms	0.030*	0.047*	0.141**
	(0.015)	(0.023)	(0.070)
ie*atm	-0.022	-0.051*	0.097**
	(0.911)	(0.026)	(0.048)
ie*mms	-0.081	-0.015*	0.127***

	(1)	(2)	(3)
	(0.711)	(0.007)	(0.012)
neet*atm	-0.268	0.087**	0.132***
	(0.534)	(0.043)	(0.030)
neet*mms	-0.387	0.094	0.091**
	(0.727)	(0.347)	(0.045)
R-squared (within)	0.31	0.23	0.24
F-test	1.38***	2.55**	3.08**
# of countries	26	20	15
# of observations	275	208	129

Note: Table 6 presents equation (2) estimates, where GDP_growth is the dependent variable. Column (1) presents results for low-income countries, (2) for middle-income countries, and (3) for high-income countries. Significance levels are denoted by ***, **, and *, representing significance at the 1%, 5%, and 10%, respectively.

Appendix F - Table 7. Robustness checks

	(1)	(2)	(3)	(4)	(5)
GDP_growth_{t-1}	0.027**	0.019**	0.032*	0.010**	0.013**
	(0.023)	(0.009)	(0.016)	(0.005)	(0.006)
gdp_ep	0.015**	0.017**	0.008*	0.011*	0.076**
	(0.007)	(0.008)	(0.004)	(0.005)	(0.038)
ie	-0.024**	-0.035**	-0.123	-0.094*	-0.011*
	(0.012)	(0.017)	(0.577)	(0.047)	(0.005)
neet	-0.021**	-0.018**	-0.025**	-0.021*	-0.022**
	(0.010)	(0.009)	(0.012)	(0.010)	(0.011)
atm	0.021**	0.018**	0.025**	0.021*	0.022**
	(0.010)	(0.009)	(0.012)	(0.010)	(0.011)
mms	0.028*	0.035**	0.019**	0.018*	-0.011
	(0.014)	(0.017)	(0.009)	(0.009)	(0.755)
ie*atm	0.011**	0.013**	0.017	0.013*	0.009*
	(0.005)	(0.006)	(0.019)	(0.006)	(0.004)
ie*mms	0.026*	0.031**	0.021**	0.017	0.011*
	(0.013)	(0.015)	(0.010)	(0.093)	(0.005)
neet*atm	0.022*	0.011*	0.032	0.337	-0.141
	(0.011)	(0.005)	(0.087)	(0.511)	(0.973)
neet*mms	-0.031*	0.010**	-0.062	-0.051	0.027*
	(0.016)	(0.005)	(0.411)	(0.310)	(0.013)
R-squared (within)	0.20	0.23	0.19	0.29	0.30
F-test	1.86**	3.01**	2.84***	3.05**	3.38**
# of countries	61	61	61	61	61
# of observations	549	563	541	532	528

Note: Table 7 presents the estimates obtained using alternative variable measures and different estimators. Column (1) uses a distinct measure for the dependent variable—per-capita GDP growth—. Moving to column (2), the analysis incorporates a different measure of decent work, utilizing the Job Quality Index. In column (3), an alternative gauge for financial inclusion is introduced, represented by the volume of online payment transactions. Columns 4 and 5 utilize diverse estimators, specifically Maximum Likelihood Estimation and the Anderson-Hsiao estimator, respectively.