

The Digitalization Paradox: A Systematic Literature on The Impact of Digital Transformation on Wealth Inequality Within BRICS Nation

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Abstract: While the scholarly field of digital inequality continues to expand in diverse directions, the intricate relationship between digital disparities and traditional forms of wealth inequality has yet to be fully addressed. Wealth inequality is a multifarious challenge driven by structured factors such as education gaps, income inequality, usage patterns, unemployment, and unequal access to investment opportunities. This research highlights the key importance of understanding how income inequality, financial inclusion, and employment trends influence the overall wealth distribution within the BRICS nations (Brazil, Russia, India, China, South Africa (2010), Egypt (2024), Ethiopia (2024), Iran (2024), Saudi Arabia (2024), United Arab Emirates (2024), Indonesia (2025)).

The methodology of this study utilizes a systematic literature review of modern investigation and a theoretical investigation. By combining existing literature, this paper discusses key actual observations and offers exhaustive explanations for the shifting economic landscape. The objective of this study is to investigate the impact of digital innovation and financial development on wealth inequality in BRICS countries. The results within this research paper suggest that, contrary to initial expectations of two digital leveling, technological innovation often increases wealth inequality within the BRICS countries. The finding indicate that the “digital divide” is no longer merely a matter of hardware access or “who has a phone”; instead, it has evolved into a gap in how individuals leverage digital tools to generate and accumulate wealth.

The study concludes that to mitigate the inequality, policymakers must move beyond basic connectivity. There is a need to ensure the equitable distribution of wealth, stabilize the macro-economy, and strongly develop the digital skills of young entrepreneurs. Furthermore, strategic investment in financial technology must be balanced with inclusive regulatory frameworks to enhance sustainable economic growth across the BRICS nations.

IndexTerms: Digitalization, wealth inequality, investment, unemployment, economic growth, financial inclusion, digital divide, BRICS countries, technological innovation, systematic literature review

I. INTRODUCTION

According to Rastogi and Gaikwad (2017) Over the last ten years, the BRICS nations (Brazil, Russia, India, China, South Africa (2010), Egypt (2024), Ethiopia (2024), Iran (2024), Saudi Arabia (2024), United Arab Emirates (2024), Indonesia (2025)) have become major leaders in the world economy .However, while these countries are growing rapidly, they are also seeing a massive gap between the rich and the poor. Because of this high inequality, experts (Younsi and Bechtini, 2018) are concerned about whether this economic success can actually be maintained in the long run. While Digital innovation and financial growth have helped these

countries grow their economies (Lacasa et al.2019; Zhang 2021), Even though these countries are modernizing, it is still hard to tell if technology and better banking systems are actually helping or hurting this gap. Experts (Hasan et al., 2020; Adebayo, 2023; Wang and Wu, 2023) disagree on the results—some evidence shows these advancements help reduce inequality, while other evidence suggests they might be making it worse. Some studies suggest that innovation can reduce inequality by creating new opportunities for workers with diverse skills and abilities while other argue that digitalization favor highly skilled workers and those who are already wealthy (Kharlamova et al. 2018; Aghion et al. 2019; Giri et al. 2021). The wealth inequality leads to a gap in the availability of basic essential and a reduction in the number of people who can break out the trap of poverty. The gap between the rich and poor in terms of education and health care is still very large in many countries (Abubakar at al. 2022). The Mduduzi Biyase, Zwane, Mncayi, Maleka 2023 study's results have important implications for policy and practice in the BRICS countries. High level of wealth and income inequality are associated with economic instability, financial crises, debt and inflation in societies with less equality (Nicholas N.B., Dadzie, Haywood-Dadzie 2023). There are other factors that can affect inequality according to Xin Zhao (2025) like access to internet and distraction, parent availability, involvement, digital literacy, self-regulation and motivation. Qiran Yue (2023) study focus on tax policy and education investment in AI governance, enhance the theoretical and empirical research of AI research and provide reference for us to promote harmonious development of society. According to Laura Robinson, Cotten, Hiroshi, (2015) the significance of digital inequalities is a clear across a broad range of individual individual-level and macro-level domains including gender, race, class as well as health care, politics, economic activity and social capital. The study suggests that those with higher levels of education and from rich background use web for more “capital enhancing” activities.

The remainder of this paper is structured as follows: Section 2 provide an overview of the relevant literature on the effect of digital innovation and financial development on wealth inequality. Section 3 describes the data and the econometrics methodology. Section 4 presents the research gap. Section 5 mapping of objective and questions. Section 6 presents hypothesis. Section 7 draws conclusion.

II. LITERATURE REVIEW

Digital innovation is a key driver of economic growth, using science and engineering to create new tools for businesses and society (Fayomi et al., 2019; Sobolieva et al., 2021). At the same time, financial development focuses on making banks and markets more efficient (Anginer et al., 2018; Qureshi, 2019). However, inequality remains a major issue, as resources and opportunities are often shared unfairly. Wealth inequality, in particular, is a serious threat to social stability and can push developing countries toward a crisis when most people live in poverty (Kharlamova et al., 2018). While the link between technology, finance, and inequality is complex (King and Levine, 1993; United Nations, 2018; Mbona, 2022; Biyase and Chisadza, 2023), economic theory shows that both digital and financial progress lead to growth.

By looking at how well banks and bond markets operate, we can measure the strength and reach of a financial system (Stiglingh, 2015). A strong banking sector is essential because it identifies and funds profitable new ideas, which encourages innovation (Schumpeter, 1912). Furthermore, financial development improves investment productivity and lowers costs, helping to turn savings into productive projects (Levine, 2021). Modern financial policies and tech tools also promote "financial inclusion," which allows poor families and small businesses to finally participate in the formal economy (Cihak and Sahay, 2020). Ultimately, a healthy financial sector supports both digital innovation and overall economic progress (King and Levine, 1993). According to Jerome 1934; Nelson and Phelps 1966; Schultz (1975) development in technology leads to industrial resolution in early 1990. As per Bogliacino (2014) digital innovation favor educated over uneducated and unskilled. Unskilled and poorly skilled replaced by automation (Kharlamova et al. 2018). Poor

people are more likely to be uneducated and unskilled and vice versa (Zhu and Trefler 2005; Levine 2012). Higher levels of education and more richer background use web for “capital accumulation”. As per Qiran Yun (2023) study inequality caused by AI majorly focus on employment, income and wealth inequality. According to Laura Robinson (2015) digital inequality is there due to so many factors like access, usage, skills, and self-perceptions. The Xin Zhao (2025) tells in his study that there are three compounding factors: access, surroundings, and the self. The income inequality and unemployment have negative relationship with economic growth.

III. METHODOLOGY

This study adopts a systematic literature review approach to examine the impact of digitalization on wealth inequality in BRICS countries (Brazil, Russia, India, China, South Africa (2010), Egypt (2024), Ethiopia (2024), Iran (2024), Saudi Arabia (2024), United Arab Emirates (2024), Indonesia (2025)). A systematic review is a structured and transparent method used to identify, evaluate and synthesize existing research.

The relevant studies were identified by using academic databases such as: Google scholars, springer.

Keywords use to search research paper are: Digitalization and its impact on BRICS countries

Digital divide and BRICS countries.

Nicholas (2023) study focus on income inequality, unemployment, financial inclusion and investments and not focused on BRICS countries and does not address wealth inequality. The researcher Xin Zhao have overly focused on the electronic setup and exclude the physical facility of a student’s home affects their academic achievements and their usage of digital learning resources. Eszter Haegittai; Hinnant 2008 study focus on internet usage and digital divide with the help of education income and skills among the young adults and studies do not compare differences among users; rather, they consider the possible beneficial outcome of online activities between users and non-users. Qiran Yue 2023 combs the impact of AI on employment and income inequalities, mainly in the substitution and creation of employment, “emotional exploitation“, digital divide issues, and the confrontation between the code elite and the “cyber working class”. Mduduzi Biyase 2023 focus on digital innovation and financial development in BRICS countries by using IMF, World Bank data and does not focus on micro- level inequality factors. Robinson et al. 2015 study focus on digital inequality and why this study matter and does not directly link to wealth inequality.

IV. RESEARCH GAP

The review of existing studies reveals various significant gaps in the existing literature on Digitalization and its impact on inequality. the studies focus on Africa-based analysis on financial inclusion and the BRICS-focused paper on technological innovation provide strong empirical evidence on income inequality, they largely concentrate on income inequality rather than wealth inequality. However, BRICS study examines digital innovation and financial development does not completely focus on broader dimensions of digitalization such as internet accessibility usage of internet. Moreover, studies on digital inequality (Hargittai &Hinnant, 2008; Robinson et al. 2015). Mainly focus on digital divide particularly in terms of skill and access but lack of direct connection with wealth inequalities. Educational inequality (Zhao 2023) and AI study (Yue 2023) focus on important aspects of digital transformation. In addition, mostly studies focus on individual aspects such as education, employment, skill rather than providing an integrated analysis of digitalization and its inequality. This study aims to bridge the gaps by combining existing study and provide a comprehensive understanding of how digitalization influences wealth inequality in BRICS countries.

V. RESEARCH OBJECTIVE AND QUESTION MAPPING

The main objective of this study is to examine the impact of digitalization on wealth inequality in BRICS countries using systematic literature review (SLR). To analyze the relationship between digitalization and wealth inequality. How does digitalization influence wealth inequality in BRICS countries? There are various factors that can influence wealth inequality like education, income distribution, employment and many more. To examine the role of financial inclusion in reducing or increasing inequality. What role does financial inclusion play in shaping inequality in BRICS countries? Financial inclusion means everyone have access to financial services like bank account, digital payment etc. Financial inclusion play an important role in reducing wealth inequality in BRICS countries by proving easy access to financial services even to low-income populations. To identify the policy that can help in reduce wealth inequality in BRICS countries. Which policy help in reducing the wealth inequality in BRICS countries? Digital financial inclusion policy, investment in rural internet infrastructure, education and skill development policies, progressive taxation and wealth redistribution, regional development policies, credit policies these all policies help in reducing wealth inequality.

VI. HYPOTHESES

- H1: Digitalization has a significant impact on wealth inequality in BRICS countries.
- H2: People with higher levels of education have higher level of digital literacy.
- H3: People with more experience in using internet use internet mostly for investment purpose.
- H4: People with higher level of income use internet in viewing capital enhancing website.
- H5: People with higher knowledge of internet are employed.
- H6: Urban area people have more access to internet or digital world.

VII. CONCLUSION

This study examined the impact of digitalization on wealth inequality in BRICS countries using systematic literature review approach. The study finds that digitalization has dual impact on wealth inequality. On the one side, digitalization promotes financial inclusion, access to information and create new economic opportunities, which helps in reducing wealth inequalities. On the other side benefits individual with higher education, better digital skills and having great financial resources and increase the gap between rich and poor.

The study highlights that digital divide has evolved from access to technology, difference in skills and ability to generate wealth by using digital platforms. The skilled worker having knowledge of digital world are given chances to work and this increase the gap between skilled and unskilled work.

The study also finds that financial inclusion plays an important role in reducing inequality moreover , its effectiveness depends on equal access and proper utilization of digital technology.

It is concluded that digitalization alone cannot reduce inequality unless supported by inclusive policies such as Digital financial inclusion policy, investment in rural internet infrastructure, education and skill development policies, progressive taxation and wealth redistribution, regional development policies, credit policies these all policies help in reducing wealth inequality.

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