

ORIGINAL RESEARCH ARTICLE

Gender inequality: health, gender, and economic benefits of self-employment in China

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Abstract

This study explored the health, gender, and economic benefits of self-employment in China from 2000 to 2021. The findings using descriptive analysis and graphs, indicate a steady improvement in life expectancy, suggesting advancements in healthcare and living conditions, while self-employment participation has fluctuated, revealing its potential as a flexible income source during economic downturns. Despite a decline in employment in formal sector, self-employment appears to contribute to economic resilience, offering alternative employment avenues. Additionally, the study highlights a modest decline in gender inequality alongside decreasing participation in self-employment, indicating a possible shift towards more stable employment structures that promote equity. We conclude that self-employment can enhance health outcomes, support gender equity, and provide economic stability. We recommend continued policy support to sustain its benefits within China's evolving labour landscape. (*Afr J Reprod Health* 2025; 29 [2]: 113-121).

Keywords: Life expectancy; under-five mortality; gender inequality; self-employment

Résumé

Cette étude a exploré les avantages du travail indépendant sur la santé, le genre et l'économie en Chine de 2000 à 2021. Les résultats, basés sur une analyse descriptive et des graphiques, indiquent une amélioration constante de l'espérance de vie, suggérant des progrès en matière de soins de santé et de conditions de vie, tandis que le travail indépendant la participation a fluctué, révélant son potentiel en tant que source de revenus flexible en période de ralentissement économique. Malgré une baisse de l'emploi dans le secteur formel, le travail indépendant semble contribuer à la résilience économique, offrant des possibilités d'emploi alternatives. En outre, l'étude met en évidence une légère baisse des inégalités entre les sexes ainsi qu'une diminution de la participation au travail indépendant, indiquant une évolution possible vers des structures d'emploi plus stables qui favorisent l'équité. Nous concluons que le travail indépendant peut améliorer les résultats en matière de santé, soutenir l'équité entre les sexes et assurer la stabilité économique. Nous recommandons un soutien politique continu pour pérenniser ses avantages dans le paysage du travail en évolution en Chine. (*Afr J Reprod Health* 2025; 29 [2]: 113-121).

Mots-clés: Espérance de vie; mortalité des moins de cinq ans, inégalité entre les sexes; travail indépendant.

Introduction

The global economy is currently undergoing a significant transformation, driven by various factors such as economic recession, shifts in the global business landscape and changes in consumer expectations. Many companies are forced to reevaluate and restructure their operational models to remain competitive amidst these challenges^{1,2}. Central to this economic evolution is self-employment, a phenomenon that has gained significant traction in recent years due to advancements in digital technologies and increasing globalization.

Self-employment, often characterized by flexible, temporary work arrangements, is revolutionizing the traditional concept of employment. Workers in this sector typically operate as independent contractors, engaging in short-term contracts or freelance work mediated by digital platforms. These platforms offer a variety of services, including food delivery, transportation, online freelance work, and other service-oriented roles³⁻⁵. In the wake of this transformation, the self-employment has become a subject of growing interest among researchers seeking to understand its implications on employment terms and conditions, worker well-being, and labour law⁶⁻⁹.

While self-employment offers unprecedented flexibility and autonomy for workers, it also brings with it a series of challenges and uncertainties. One of the key debates surrounding self-employment is the precarious nature of employment and the lack of worker protections that characterize this sector. Although this type of employment offers flexibility, especially for individuals seeking non-traditional work arrangements, it often lacks the stability and security associated with conventional employment. This shift in the nature of employment has sparked discussions around worker rights, social security benefits, and fair wages¹⁰. Moreover, the health and well-being of self-employers, who frequently face long hours, job insecurity, and minimal regulatory oversight, have become important areas of inquiry. Self-employment is not confined to any one region or industry; its presence is felt worldwide. In India, for example, self-employment has experienced an enormous surge in recent years. The rapid growth of digital platforms like Flipkart, which emerged as one of the first digital platforms in the country in 2010, has driven the expansion of self-employment¹¹. Self-employment in India is also notable for attracting female service providers due to the flexibility it offers, enabling women to balance paid work with household responsibilities. However, despite the benefits, women still face significant barriers to full participation in self-employment, particularly in relation to structural challenges and gender-based inequalities¹¹.

The health implications of self-employment are a growing area of concern. Workers in this sector often operate without the health benefits or protections offered in traditional employment. This lack of formal workplace protections can lead to negative health outcomes, particularly for workers in physically demanding roles like delivery services or ride-hailing. Additionally, the mental health impacts of self-employment, such as stress related to income instability, irregular working hours, and job insecurity, have been widely reported in various studies across the world^{6,9}.

From a gender perspective, self-employment presents both opportunities and challenges. On the one hand, the flexibility of self-employment can be empowering for women, particularly those balancing professional responsibilities with household duties. However, the structural barriers that women face in entering and succeeding in self-

employment, such as societal expectations and the unequal division of domestic labour, continue to hinder their full participation¹¹. Furthermore, the issue of gender-based pay gaps remains prominent, as women in self-employment may earn less than their male counterparts due to discriminatory practices and the types of work they are more likely to engage in³.

Despite the increasing prominence of self-employment, the academic literature on this subject in China remains limited, particularly in the context of health, gender, and economic outcomes. While many studies have explored the broader impact of the self-employment globally, empirical works focusing on China's labour market are scarce. This gap in the literature presents an opportunity to explore the unique dynamics of self-employment in China, especially in relation to gender disparities, health outcomes, and the economic benefits that gig work offers. Therefore, the objective of this study is to explore the health, gender, and economic benefits of self-employment in China, utilizing descriptive statistics to provide a comprehensive overview of the current state of self-employment in the country.

Literature review

James¹² investigated the gendered dynamics of digital labour platforms and the experiences of women self-employers. Using interviews with 49 women in the UK across platforms like People-Per-Hour and Up-work, the study highlighted how gender identities and household roles influence digital labour. It showed that despite claims of disrupting gender inequalities, women face algorithmic barriers, health risks, and safety concerns. The study called for addressing these challenges by promoting gender equity in platform visibility and worker safety.

Glavin and Schieman¹³ examined the relationship between platform work engagement and mental health among Canadian workers. Using two nationally representative samples, they found that dependent platform workers experience higher psychological distress compared to secondary platform workers, wage workers, and traditional self-employed individuals. Financial strain was a key factor, explaining 50% of this distress and exacerbating mental health penalties. The study recommended addressing the financial challenges

faced by dependent platform workers to mitigate stress, raising concerns about the mental health implications of platform work in a post-pandemic economy.

Lu, *et al.*¹⁴ explored the impact of the digital economy on female employment in China. Using data from various national surveys and online recruitment, the study found that the self-employment boosts female employment by fostering gender equality and increasing demand for female-preferred jobs. However, digitalization has not significantly improved labour rights or reduced work intensity for women, nor has it narrowed the gender employment gap. The authors recommended addressing the digital gender divide and enhancing the quality of female employment, particularly in protecting workers' rights and reducing overtime burdens.

Babo and Odame¹⁵ aimed to investigate the gender gap in Ghana's self-employment, focusing on the challenges hindering women's participation. Using a qualitative approach and exploratory research design, they adopted a thematic analysis to explore the issues women face. Key challenges identified included social and cultural expectations, as well as insecurities. The authors recommended engaging traditional leaders to address cultural stereotypes and promote women's participation in ICT jobs. They emphasized that increasing women's involvement in self-employment could positively impact social mobility, productivity, gender equality, and economic empowerment in Ghana. Salleh *et al.*¹⁶ aimed to analyze the challenges, effects, and motivations of self-employed workers, specifically focusing on food delivery riders in Kota Kinabalu, Sabah. Using a qualitative approach and semi-structured interviews, they explored the experiences of both full-time and part-time riders. The study identified unstable income, lack of job security, long working hours, and physical fatigue as major challenges. The authors recommended addressing these issues by improving job security, offering benefits such as health insurance, and regulating working hours to enhance worker well-being and financial stability.

Vučeković *et al.*¹⁷ explored the relationship between freelancing in the self-employment and subjective well-being in the Western Balkans. Using an online questionnaire with 471 freelancers from Serbia, Bosnia,

Macedonia, and Montenegro, the study used factor analysis to examine well-being drivers. Two main factors were identified: personal life and health impacts of remote work, and economic/professional fulfillment. Older freelancers were more satisfied, while more educated freelancers showed lower satisfaction. Gender did not significantly affect satisfaction. The study recommended addressing the specific needs of different demographic groups to enhance well-being in self-employment.

Methods

This study employed a comparative analysis approach to examine the benefits of self-employment in relation to health, gender, and the economy in China. The analysis utilized data from 2000 to 2021, sourced from the World Bank's World Development Indicators¹⁸ and The University of Cothenburg QOG-BD¹⁹. A comparative analysis was conducted to explore the relationships between self-employment and health, gender, and economic outcomes in China. The period from 2000 to 2021 was selected due to the availability of relevant data for the study.

Estimation procedures

To assess the connection between health, gender and self-employment in China, this study drew insights from existing literature, including Ciobanu²⁰, Jeon *et al.*²¹, Zhou *et al.*²², Ozili²³, Chandana *et al.*²⁴, and Okunkova *et al.*²⁵, Azuh *et al.*²⁶ Feng *et al.*²⁷ Jakovljevic²⁸ Nasir *et al.*²⁹. Obasaju *et al.*³⁰. Osabohien *et al.*³¹ Sui *et al.*³² Hao *et al.*³³ Life expectancy and under-five mortality rates were used as proxies for health, while the gender inequality represented gender. Real GDP was employed as a measure of the economy, and total self-employed served as a proxy for self-employment. Given the nature of this study, the chosen method for the comparative analysis was the use of graphs and descriptive statistics, providing a comprehensive approach to facilitate a thorough understanding of the subject.

Data analysis

Given the nature of this study, the primary data analysis methods employed are graphs and descriptive statistics.

Table 1: Measurement of variables

Variable	Code	Measurement	Source
Economy	GDP	GDP growth (annual %)	WDI
Health	LE	Life expectancy at birth, total (years)	WDI
	UFM	Mortality rate, under-5 (per 1,000 live births)	
Gender	GEN	Gender Inequality Index (0 to 1 higher disparity)	UOC (QoG-BD)
Self-employment	GIG	Self-employed, total (% of total employment) (modeled ILO estimate)	WDI

The use of graphs enables the assessment and identification of patterns, trends, and changes in the data over time. This approach offers a comprehensive understanding of the study's subject matter.

Additionally, descriptive statistics help to explain the distribution and patterns of the variables, with the mean value summarizing key insights.

Ethical consideration

This study utilized World Bank World Development Indicators (WDI) data, which ensures anonymity and aggregation, eliminating risks of harm or identifiable information. We adhered to WDI's terms of use and verified data accuracy. Our analysis followed rigorous methodologies, and findings are presented transparently." Ethical approval not required because no human or animal subjected were involved.

Results

Figure 1 illustrates how life expectancy in China from 2000 to 2021 may have been influenced by trends in self-employment. Over the period, self-employment showed a marked decline, dropping from 61.9 in 2000 to 19.8 in 2021. Simultaneously, life expectancy demonstrated a steady rise from 71.4 in 2000 to 75.9 in 2015, before sharply dropping to 34.2 in 2021. Figure 2 depicts the relationship between under-five mortality (UFM) and self-employment in China from 2000 to 2021. During this period, self-employment demonstrated a notable decline, with the GIG index dropping from 61.9 in 2000 to 19.8 in 2021. Simultaneously, under-five mortality also showed a steady decrease, falling from 36.7 in 2000 to 5.1 in 2021.

Figure 3 illustrates the relationship between gender inequality (GEN) and self-employment in China from 2000 to 2021.

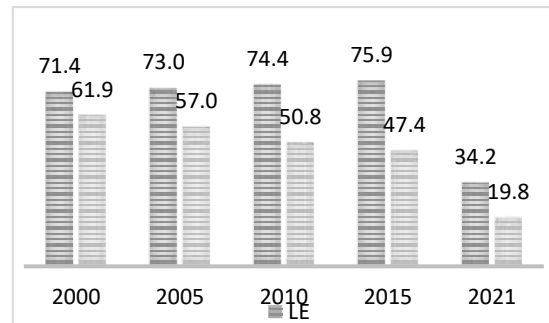


Figure 1: Relationship between life expectancy and self-employment

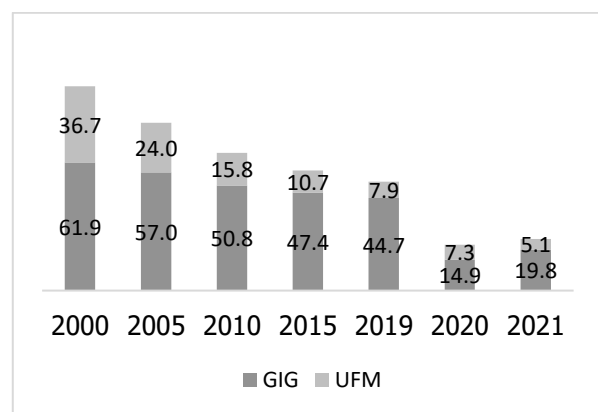


Figure 2: Relationship between under-five mortality and self-employment

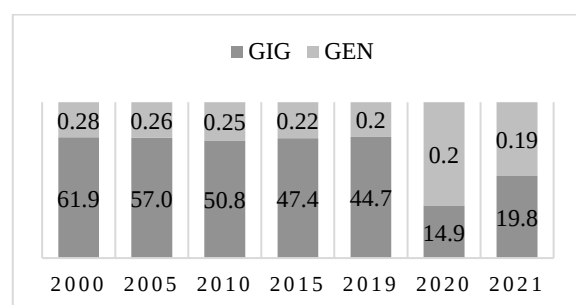


Figure 3: Relationship between gender inequality and self-employment

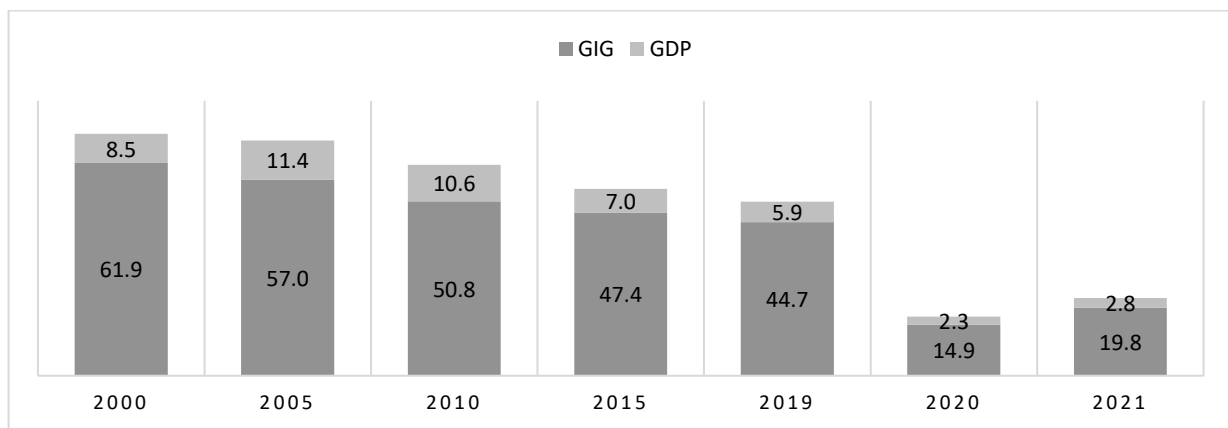


Figure 4: Relationship between GDP and self-employment

Table 2: Descriptive statistics of the variables of the study

	GEN	GDP	GIG	LE	UFM
Mean	0.240455	8.529511	51.86722	74.49058	17.65000
Median	0.245000	8.412913	50.25500	74.55850	15.20000
Maximum	0.280000	14.23086	61.91000	76.91200	36.70000
Minimum	0.190000	2.347514	44.66000	71.39700	7.300000
Std. Dev.	0.025538	2.592465	5.737278	1.800189	9.112563
Skewness	-0.490707	-0.039059	0.444293	-0.174960	0.695992
Kurtosis	2.066444	3.485157	1.776526	1.722553	2.277481
Jarque-Bera	1.681807	0.221357	2.095935	1.608122	2.254682
Probability	0.431321	0.895227	0.350650	0.447508	0.323893
Sum	5.290000	187.6492	1141.079	1638.793	388.3000
Sum Sq. Dev.	0.013695	141.1383	691.2435	68.05429	1743.815
Observations	22	22	22	22	22

Throughout this period, the self-employment index consistently declined, from 61.9 in 2000 to 19.8 in 2021, while gender inequality followed a downward trend, reducing from 0.28 in 2000 to 0.19 in 2021.

Figure 4 illustrates the relationship between GDP and the self-employment in China from 2000 to 2021. Over this period, self-employment appears to have a noticeable impact on GDP, with fluctuations in GDP growth aligning with changes in Gig economy activity. Between 2000 and 2005, the GDP showed an increase alongside the expansion of the Gig economy, suggesting a positive correlation between the two. As the self-employment continued to grow, its influence on economic output seemed to increase, evident in 2010 when both GDP and self-employment growth peaked. However, from 2015 onwards, self-employment's influence on GDP began to decrease, reflected by a gradual decline in GDP growth. In the years leading up to 2021, self-

employment's contribution to GDP remained significant but began to level off, indicating possible saturation or other economic shifts. Table 2 presents a descriptive analysis of five variables—GEN, GDP, GIG, LE, and UFM—across 22 observations, shedding light on their statistical characteristics and distributions. Starting with GEN, which has a mean of 0.24, it demonstrates low variability with a standard deviation of only 0.025. This indicates that the values are closely clustered around the mean, with a slight negative skewness suggesting a tendency toward lower values. The Jarque-Bera test probability of 0.43 further supports the conclusion that GEN does not deviate significantly from a normal distribution, making it a stable variable. In contrast, GDP, with a mean of 8.53 and a standard deviation of 2.59, shows moderate variability. Its distribution is nearly normal, as evidenced by the skewness being close to zero.

This implies a balanced dataset with both lower and higher values being equally represented, which is crucial for economic analyses.

The variable self-employment, with a mean of 51.87, displays a wider spread and positive skewness, indicating the presence of higher values and outliers. This suggests variability in whatever GIG measures, potentially reflecting diverse underlying factors. LE, averaging 74.49, is tightly distributed with low variability, indicating consistency across observations. Lastly, UFM has the highest mean at 17.65 and shows substantial variability, with positive skewness, suggesting a range of values that may indicate outlier effects or diverse data sources.

Discussion

The data on life expectancy (LE) and self-employment participation (GIG) in China from 2000 to 2021 highlights key trends and potential interactions. Life expectancy increased steadily from 73 to 76 years, reflecting advancements in healthcare, living standards, and societal welfare. In contrast, self-employment participation fluctuated significantly, ranging from 45% to 55%, with notable declines in the mid-2000s and between 2015 and 2021. Periods of decreased self-employment participation coincide with slight increases in life expectancy, suggesting a possible inverse relationship. A shift from precarious self-employment to more formal and stable employment opportunities may improve job security and access to benefits like healthcare, reducing stress and promoting better health outcomes. Conversely, self-employment's inherent instability, marked by financial insecurity and limited healthcare access, could negatively affect health, making formal employment transitions beneficial for life expectancy.

Under-five mortality (UFM) consistently declined during this period, from 40 deaths per 1,000 live births in 2000 to about 7 in 2021, reflecting improved child healthcare, nutrition, and living conditions. This decline, alongside fluctuations in self-employment, raises questions about the indirect benefits of self-employment. While declining self-employment appears linked to improved child health outcomes, its presence may have provided supplemental income for families, enabling better healthcare and nutrition for children. The shift from self-employment to formal employment structures is

likely a significant factor in reducing UFM. Formal jobs often offer better access to healthcare, social services, and financial stability, all of which contribute to improved child welfare. Broader economic and policy shifts, such as healthcare reforms between 2015 and 2021, may have further enhanced child health outcomes during this period. The data indicates a potential link between the reduction in self-employment and improvements in gender inequality. Self-employment often involves low wages, limited worker protections, and the absence of benefits, which disproportionately affect women, particularly in contexts where gender disparities are already prevalent. As self-employment participation decreases, women may gain better access to formal, stable employment, which typically offers greater job security, legal protections, and benefits, contributing to reduced gender inequality.

The shift toward formal employment structures enables the implementation of gender-equality policies such as paid maternity leave, anti-discrimination measures, and pay equity, which are often absent in self-employment contexts. This shift is likely responsible for the steady decline in gender inequality observed from 2000 to 2021. Despite a decline in self-employment, the gender inequality index remained relatively stable, suggesting that the structural gender disparities in the workforce did not worsen significantly. Interestingly, the observed decline in gender inequality coincides with the reduction in self-employment participation, implying that the move toward more formalized labor markets created opportunities for women to secure more stable and better-paying jobs. This transition, along with the introduction of supportive labor policies, appears to have contributed to the observed improvements in gender equality in the labor market.

Finally, the data suggests that while self-employment initially played a vital role in driving China's economic growth, its relative influence diminished in later years, possibly due to structural changes in the broader economy or market saturation. The possible benefit of self-employment, as a measure of the gig economy on GDP perceived from the analyzed data shows initially, self-employment rates were high, peaking at 61.91% in 2000, while GDP steadily increased, reaching a high of 14.23 in 2007. This period of robust economic

growth suggests that self-employment played a critical role in contributing to the economy, offering individuals flexible work opportunities that may have spurred entrepreneurial activity and innovation. However, the decline in self-employment rates in China indicates a shift towards more formal employment structures, likely due to increased regulatory oversight and the growth of traditional jobs. Despite GDP fluctuations, including a sharp decline in 2020, there was a small recovery in self-employment, highlighting the gig economy's resilience. This sector provides essential benefits, such as flexibility and adaptability, which can buffer individuals during economic instability. Thus, while self-employment rates have decreased, the gig economy remains relevant by offering alternative employment avenues that enhance economic resilience and support livelihoods amid traditional job market challenges.

Study strengths and weaknesses

This study provides clear insights into the self-employment's impact on health, gender equity, and economic resilience in China from 2000 to 2021. The use of descriptive analysis and graphs offers a clear and accessible understanding of trends in life expectancy, gender inequality, and the economy. By investigating a long-term period, the study captures significant fluctuations in self-employment participation, which helps illustrate its role during economic downturns and contributions to economic stability. The integration of gender equity analysis adds depth to the findings, showing how gig work may affect societal structures.

On the other hand, the study's reliance on descriptive analysis may limit the depth of causal inferences between self-employment participation and positive outcomes. The findings suggest relationships but may not fully account for other macroeconomic variables or structural changes influencing health and gender outcomes. Additionally, while the study focuses on China, its generalizability to other contexts is limited, as self-employment's impact may be different depending on labor policies and economic conditions.

Conclusion

The study on the health, gender, and economic benefits of self-employment in China discloses complex interactions between self-employment and

each of the other factors over the past two decades. While life expectancy has steadily improved, the fluctuations in self-employment participation suggest that this sector can provide valuable income opportunities, potentially enhancing access to healthcare and contributing to better health outcomes. Furthermore, the observed decline in gender inequality, albeit modest, alongside a decrease in self-employment engagement, indicates that a shift towards more formal employment may support advancements in gender equity.

Economically, despite declining formal employment rates, self-employment has shown resilience during downturns, offering flexibility that can buffer individuals against economic instability. Generally, while self-employment faces challenges, its role in promoting health, supporting gender equality, and contributing to economic resilience underscores its importance in China's evolving labor market. Continued examination and policy support for self-employed workers could enhance these benefits, ensuring that this sector remains a vital component of the economy and society.

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Reference

1. Norwani NM, Ismail Z, Nasir NNA, Yusof R and Jamaluddin NSA. The Influence of Gender, Age, Academic Level and Motivation on Satisfaction toward Benefits Received by Gig Economy Workers in Malaysia. *Archives of Business Research*, 2022, 10(12), 89-105.
2. Joshi A, Jain S and Gupta PK. Challenges and impact of the gig economy. *Sustainable Economies*, 2024, 2(2), 96-96.
3. Weil D. Understanding the present and future of work in the fissured workplace context. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2019, 5(5), 147-165.
4. Freni-Sterrantino A and Salerno V. A plea for the need to investigate the health effects of Gig-Economy. *Frontiers in public health*, 2021, 9, 638767.
5. Brock J. *Exploring Work-Life Balance as an Organizational Strategy: A Qualitative Study* (Doctoral dissertation, Capella University), 2023.
6. Ashford SJ, Caza BB and Reid EM. From surviving to thriving in the gig economy: A research agenda for individuals in the new world of work. *Research in Organizational Behavior*, 2018, 38, 23-41.
7. Hall JV and Krueger AB. An analysis of the labor market for Uber's driver-partners in the United States. *Ilr Review*, 2018, 71(3), 705-732.
8. Petriglieri G, Ashford SJ and Wrzesniewski A. Agony and ecstasy in the gig economy: Cultivating holding environments for precarious and personalized work identities. *Administrative Science Quarterly*, 2019, 64(1), 124-170.
9. Wang T and Cooke FL. Internet Platform Employment in China: Legal Challenges and Implications for Gig Workers through the Lens of Court Decisions. *Relations Industrielles/Industrial Relations*, 2021, 76(3), 541-564.
10. Abraham KG, Hershbein B and Houseman SN. Contract work at older ages. *Journal of Pension Economics & Finance*, 2021, 20(3), 426-447.
11. Kasliwal R. Gender and the gig economy: A qualitative study of gig platforms for women workers. *Observer Research Foundation*, 2020, ORF Issue Brief, 359.
12. James A. Women in the gig economy: feminising 'digital labour'. *Work in the Global Economy*, 2022, 2(1), 2-26.
13. Glavin P and Schieman S. Dependency and hardship in the gig economy: The mental health consequences of platform work. *Socius*, 2022, 8, 23780231221082414.
14. Lu J, Xiao Q and Wang T. Does the digital economy generate a gender dividend for female employment? Evidence from China. *Telecommunications Policy*, 2023, 47(6), 102545.
15. Babo SRS and Odame A. Where have all the women gone? The gender gap in Ghana's gig economy. *HIIG Discussion Paper Series*, 2023, 2, 1-14.
16. Salleh NM, Shukry SNM, Maylyn V and Jokinol C. Analyzing the Challenges, Effects, and Motivations of Gig Economy Workers. *Social Sciences*, 2023, 13(6), 2125-2142.
17. Vučković M, Avlijaš G, Marković MR, Radulović D, Dragojević A and Marković D. The relationship between working in the "gig" economy and perceived subjective well-being in Western Balkan countries. *Frontiers in Psychology*, 2023, 14, 1180532.
18. World Bank. (2023). World Development Indicators. Available at: <https://databank.worldbank.org/source/world-development-indicators>. (Accessed 20 October 2024)
19. Teorell, J., Sundström, A., Holmberg, S., Rothstein, B., Alvarado Pachon, N., Mert Dalli, C. and Nilsson, P. (2024). The Quality of Government Standard Dataset, Version Jan24. University of Gothenburg: The Quality of Government Institute.
20. Ciobanu AM. The impact of FDI on economic growth in case of Romania. *International journal of economics and finance*, 2021, 12(12), 1-81.
21. Jeon SH, Liu H and Ostrovsky Y. Measuring the gig economy in Canada using administrative data. *Canadian Journal of Economics/Revue canadienne d'économie*, 2021, 54(4), 1638-1666.
22. Zhou D, Bassey RA, Yan M and Aderemi TA. Do health expenditures affect under-five mortality and life expectancy in ECOWAS sub-Region. *African Journal of Reproductive Health*, 2023, 27(8), 105-113.
23. Ozili PK. Central bank digital currency, economic growth and inflation. *Journal of Money and Business*, 2024.
24. Chandana A, Adamu J and Musa A. Impact of government expenditure on economic growth in Nigeria, 1970-2019. *CBN Journal of Applied Statistics (JAS)*, 2024, 11(2), 6.
25. Okunkova EA, Kosorukova IV, Lazareva TG, Korolyuk EV and Bogomolova AV. Global gig economy: prospects and key growth threats for developing countries. *International Journal of Work Innovation*, 2023, 3(4), 403-417.
26. Azuh DE, Osabohien R, Orbi M and Godwin A. Public health expenditure and under-five mortality in Nigeria: An overview for policy intervention. *Open Access Macedonian Journal of Medical Sciences*. 2020;8(E):353-62.

27. Feng Y, Ahuru RR, Anser MK, Osabohien R, Ahmad M and Efeber AH. Household economic wealth management and antenatal care utilization among business women in the reproductive-age. *African Journal of Reproductive Health*. 2021;25(6):143-54.
28. Jakovljevic M, Liu Y, Cerda A, Simonyan M, Correia T, Mariita RM, Kumara AS, Garcia L, Krstic K, Osabohien R and Toan TK. The Global South political economy of health financing and spending landscape—history and presence. *Journal of medical economics*. 2021;24(1):25-33. <https://doi.org/10.1080/13696998.2021.2007691>
29. Nasir MH, Anser MK, Ahuru RR, Osabohien R, Ebiaku KC and Abbas S. A comparative study of the effect of health insurance on women's use of health facility delivery: Evidence from demographic health survey in Benin Republic. *African Journal of Reproductive Health*. 2022;26(6):104-15.
30. Obasaju B, Adama I, Ishola OP, Oloyede F, Osabohien R, Aregbesola A and Onabote A. Effects of immunisation on child mortality in West Africa. In 2023 International Conference on Science, Engineering and Business for Sustainable Development Goals (SEB-SDG). *IEEE*. (2023). <https://doi.org/10.1109/SEB-SDG57117.2023.10124485>
31. Osabohien R, Jaaffar AH, Akpa AF and Jakovljevic M. Mobile money, medical cost anxiety and welfare of individuals within the reproductive age in Malaysia. *Humanities and Social Sciences Communications*. (2024). <https://doi.org/10.1057/s41599-024-02767-2>
32. Sui Y, Ahuru RR, Huang K, Anser MK and Osabohien R. Household socioeconomic status and antenatal care utilization among women in the reproductive-age. *Frontiers in public health*. 2022;9:724337. <https://doi.org/10.3389/fpubh.2021.724337>
33. Hao S, Yang H, Bi R, Akinbode S O and Aderemi T A. Effects of remittances on life expectancy and under-five mortality in sub-Saharan Africa: Evidence using Generalized Method of Moments analysis. *African Journal of Reproductive Health*, 2023, 27 (10), 87-98.