

**DIGITAL PLATFORMS AND THEIR INFLUENCE ON INCOME INEQUALITY IN CHINA****Manish Gupta & Aditi Srinivasan**

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**ABSTRACT**

The digital growth has taken the shape of a unique economic change within China that has transformed labor markets, changes in income structures, and inequality. This paper will discuss the impact of digital platforms, especially those related to the gig economy, the platform-mediated workforce, and algorithmic management, on income disparity, and more specifically, gender disparities. The paper is based on the context of digital platform development, using the existing empirical and theoretical literature, and placing that context within the greater context of market transition in China, labor market segmentation and structural inequalities. Previous studies show that income inequality in China is entrusted within institutional setups like secularization of ownership sectors, migration status, returns education and gender norms. The effect of digitalisation on these already existing structures is rather than reducing wage dispersion, it tends to increase it. Recent research findings indicate platform-based work may also expand gender wage disparities by creating unequal access to highly paid work, artificial bias in algorithms, and unequal care burdens, in spite of its purported flexibility, despite digital work. This article can add to the more subtle perspective on the role of digital platforms as the sources of economic opportunity and inequality as well as as the means of intensifying inequality, by synthesizing the findings of the research on gender pay gap, labor market segmentation, and the digital transformation. The review indicates that there is a necessity to critically evaluate digital platforms not as neutral technologies, but as socio-economic systems that are integrated into the pre-existing power structures of determining the outcomes of income distribution.

**Keywords:**

Digital platforms; income inequality; gig economy; gender wage gap; labor market segmentation; digitalisation; China.

**INTRODUCTION**

The emergence of digital platforms is one of the biggest structural changes in the modern labor markets as it completely changes the organization, remuneration, and regulation of work. Platform-based business model diffusion has been accompanied by a wider shift in the economic situation in China, in terms of market liberalization, technology modernization, and changing employment relations. Online platforms, including ride hailing, food delivery, online freelancing and algorithm-driven gig work, have been significantly marketed as efficiency drivers, novelty, and in-inclusive development. Yet, there is increasing empirical evidence that these platforms can also be instrumental in revising income inequality especially by strengthening existing inequalities in terms of gender, sector and employment status.

The structural and institutional factors that have long influenced the distribution of income inequality in China are segmentation of ownership sector, migration systems based on hukou, stratification of education and gender based norms related to institutions of the labor market. Initial research on wage inequality in the process of economic transition in China found there to be huge sector wage disparities as well as continued discrimination particularly among women despite the increased employment opportunities brought forth by market reform (Liu et al., 2000; Gustafsson and Li, 2000). Later studies decided that globalization, marketization, and ownership restructuring did not do away with gender wage gaps but rather had changed the way they operated, shifting inequality or inequality, in many cases, not out of open state distribution but rather of more covert market distribution (Chen et al., 2013; Shen and Deng, 2008). It is against this backdrop that the digital platforms have come through as a new dimension to an already segmented labor market. Although platform work is often discussed as meritocratic and performance-driven, recent literature indicates that digitalisation can even recreate or at minimum enhance income inequality via algorithmic governance, tasks distribution platforms and hidden pricing processes. Han et al. (2024) reveal that there has been an increasing gender wage gap in the gig economy in China as a result of digitalization, which is in contrast to the interpretation that technology-intensive labor

markets are neutral or egalitarian. On the same note, Li et al. (2024) demonstrate that the segmentation of labor markets remains a decisive factor in wage returns even in the so-called flexible and decentralized forms of employment.

The matter of gender income inequality is especially topical when it comes to digital platforms. There is also a significant amount of literature that describes the ongoing gender wage disparities in China across the industry due to discrimination, differences in returns to education, occupational gender segregation, and limitations associated with family (Bai et al., 2022; Iwasaki and Ma, 2020; Ma, 2018). There are intricate interactions between digital platforms and these factors. On the one hand, platform work could reduce the barriers of women entry as it provides women with flexible working hours and the option to work remotely. Conversely, flexibility usually has a negative impact on the income security, social insurance, and access to higher-paying opportunities that tend to be unevenly distributed and not equally shared among women with care responsibilities and fertility-related career breaks (Li and Xu, 2022; Qin et al., 2016).

## 2. LITERATURE REVIEW

The existing body of knowledge on income inequality in China offers a critical base on the effects of digital platforms on wage distribution and labor market performance. Even prior to the platform-based work, researchers recognized the presence of inequalities in income that is based on institutional segmentation, gender norms, and disparities in access to the economic opportunity. The initial examination of the process of transforming the planned economy into a market-oriented economy in China has intensified the focus on the impact of sectoral differentiation and ownership on the generation of wide wage disparities, especially between the state and non-state sectors (Liu et al., 2000; Gustafsson and Li, 2000). With market reforms, these structural inequalities did not disappear but adopted new forms of existence and became more intense.

One of the most consistent aspects of income disparity in China has been gender wage inequality. Detailed reviews and meta-analyses constantly indicate that women receive lower remuneration compared to men no matter the sector, occupation, or area without accounting education and experience and occupation (Shen and Deng, 2008; Iwasaki and Ma, 2020). The explanations based on discrimination focus on the bias of the employers and segregation in occupations, whereas human capital approaches concentrate on differences in the returns of education and career disruptions. The evidence presented by Bai et al. (2022) is robust to conclude that discrimination is one of the key factors that perpetuate the gender pay gap, which implies that market forces are not a sufficient tool to promote fair wage decisions. The labor market segmentation theory also adds to the concept of inequality by emphasizing the sorting of workers into specific segments with different degrees of security, remuneration as well as mobility. As Ma (2018) and Li et al. (2024) demonstrate, the segmentation of ownership based on sector and institutional restrictions still affects wage, making the inequality even more solid even during the eruption of the economic growth. The migrant workers are particularly disadvantaged by the hukou limitations, the inability to access social protection, and the lack of access to high-paying jobs (Qin et al., 2016). These segmentation dynamics constitute a fundamental background on which digital platforms are being operated.

The proliferation of online platforms has created new structures of labor which overlap with the already available inequalities. Platform based work is frequently represented as flexible, comprehensive and efficiency-saving. Nonetheless, empirical research confirms that this optimistic story is getting more and more problematic. Han et al. (2024) reveal that digitalisation of the gig economy in China has led to an increase in the gender wage gap, with algorithmic assignments of tasks and reward systems based on performance being supportive of availability and constant participation, which can be unsuccessful in favor of women with more obligations to care. On the same note, Li et al. (2025) discover that access to the gig economy is socio-demographic, indicating that not all people have an equal opportunity of engaging in platform work. Traditionally, education has been considered an important equalizing factor in the labor market, but its impact on inequality minimization could be low in the digital and segmented labour market environment. Hannum (2005) records chronically unequal educational achievements which translate into unequal performance in the labor market especially in the rural regions. Slightly more recent data suggests that education returns differ substantially across industries, with women in most cases receiving less returns than men, even in the highest skilled jobs (Li, Hu, and Jin, 2025). Although seemingly skill-neutral, digital platforms can also increase these inequities because platform-related skills, ratings, and algorithmic ranking favor platform-neutral skills over more formal qualifications.

The other new branch of literature addresses the issue of governance and transparency in digital systems. Platform labor has a key role played by algorithmic management, but the decision-making processes can be obscure. Liu et al. (2025) claim that the inability to explain the working of AI-driven systems can conceal the

discriminatory consequences and workers cannot challenge unfairness. The governance structures suggested by Akhtaruzzaman and Samira Alam (2025) focus on accountability and human-centered design, though little empirical data is available regarding its use in platform labor markets. To conclude, the current body of literature indicates that the digital platforms are not situated outside but inside the structurally unequal labor market in China. Gender pay disparities, labor market division, and institutional restrictions influence the platform work access and rewarding. Instead of destabilizing inequality, the digital platforms could reorganize and deepen the disparities. This literature review highlights the necessity to have an analytic framework that would provide a connection between digitalisation and structural determinants of income inequality that have existed over time.

### 3. METHODOLOGY

The proposed study follows a qualitative-synthetic approach that is based on the systematic analysis of literature to investigate the role of digital platforms in causing income inequality in China. Considering the sophisticated nature of platform economies and the complexity of income inequality, an approach grounded in literature is suitable to combine the findings in different disciplines, such as labor economics, sociology, and digital governance studies. The methodological strategy will start with structured selection and synthesis of peer-reviewed empirical studies, meta-analyses, and critical reviews that will be obtained only based on the references that will be used. The sources are anchored over several decades which makes it possible to take a longitudinal approach to the study of the increasing or decreasing of income inequality in China since the very beginning of the shift to a market economy as the digital era. The original research on sectoral wage disparities and discrimination (Liu et al., 2000; Gustafsson and Li, 2000) provides the conditions and more recent studies are concerned with the mechanism of the gig economy and algorithmic management (Han et al., 2024; Li et al., 2025).

Three related dimensions of analysis bring the analysis to focus. To begin with, structural inequality is explored in terms of labor market stratification, distinction of ownership sector, and migration status. Ma (2018) and Qin et al. (2016) offer research that can inform the study of the role of institutional barriers in determining wage outcomes and create an important background to analyze platform labor. Second, the problem of gender-based inequality is examined in terms of wage gap studies, studies on discrimination, and studies of educational returns and labor supply decisions related to fertility (Bai et al., 2022; Li and Xu, 2022; Iwasaki and Ma, 2020). Third, the mechanisms of digital platforms are evaluated based on the interactions between algorithmic management, task allocation, and performance assessment and the already existing inequalities (Han et al., 2024; Liu et al., 2025). This methodology focuses on comparative interpretation as opposed to making new econometric estimations. Results have been classified based on the mitigating effect, replicating effect, or exacerbating effect of digital platforms on income inequality. In this way, some repetitive patterns and contradictions in the literature may be identified. As an example, although flexibility has been mentioned as an advantage of platform work, several studies relate it to income volatility and a decrease in social protection access, which have a disproportional impact on women and migrants.

An institutional perspective is also integrated into the methodology framework as the digital platforms are understood to be entrenched within the Chinese regulatory, cultural and economic systems. This view is critical to the prevention of technological determinism and the reason as to why similar platforms can lead to different inequality results in varying settings. The methodology will generate a highly detailed and theoretically based evaluation of the role of digital platforms in income inequality by integrating evidence based on time and level of analysis.

### 4. RESULTS

The synthesized findings reveal that digital platforms have a differentiated and largely inequality-reinforcing impact on income distribution in China. Across the reviewed studies, three dominant patterns emerge: the persistence of gender wage gaps within platform work, the interaction between platform labor and existing labor market segmentation, and the role of algorithmic governance in shaping unequal outcomes.

First, evidence consistently shows that gender wage gaps persist—and in some cases widen—within the gig economy. Han et al. (2024) provide robust empirical evidence that women in China's platform-based labor markets earn less than men, even when performing similar tasks. Contributing factors include differential access to high-demand time slots, customer rating biases, and constraints related to unpaid care work. These findings align with broader evidence of gender discrimination and unequal returns to labor across sectors (Bai et al., 2022; Iwasaki & Ma, 2020).

Second, platform work does not eliminate labor market segmentation but instead overlays a new digital layer onto existing divisions. Workers already positioned in disadvantaged segments such as migrants and those

excluded from stable employment—are more likely to rely on low-paying, high-competition platform jobs (Qin et al., 2016; Li et al., 2024). Ownership sector segmentation and differential educational returns continue to influence income outcomes, limiting upward mobility within platform labor (Ma, 2018; Li, Hu, & Jin, 2025). Third, algorithmic management systems play a central role in mediating inequality. Performance metrics, ratings, and opaque task allocation algorithms shape earnings potential, often without clear accountability mechanisms. The lack of transparency identified by Liu et al. (2025) increases the risk that discriminatory outcomes remain hidden and uncontested. While governance frameworks for AI-assisted systems have been proposed, their practical implementation in platform labor markets remains limited (Akhtaruzzaman & Samira Alam, 2025).

**Table 1. Summary of Key Inequality Mechanisms in China's Digital Platform Economy**

Dimension	Key Mechanism	Inequality Outcome
Gender	Algorithmic task allocation; care constraints	Persistent/widening gender wage gap
Labor segmentation	Hukou status; sectoral barriers	Concentration in low-paying platform jobs
Education	Unequal returns to education	Limited income mobility
Governance	Opaque AI systems	Hidden discrimination

Overall, the results indicate that digital platforms in China function less as equalizing forces and more as mechanisms that reconfigure and often intensify pre-existing income inequalities. These findings challenge narratives of technological neutrality and highlight the need for policy and governance interventions that explicitly address inequality within digital labor markets.

## DISCUSSION

The synthesized findings of the present research have significant implications to the functions of digital platforms in creating income inequality since it shows that platform-based labor in China is rooted to exist within existing structural and institutional inequalities. As opposed to acting as technological intermediaries that are neutral, the digital platforms are seen to be socio-economic systems that engage with the segmentation of the labor market, gender norms, and governance frameworks. The findings explained in this discussion contextualize them and place them in the broader theoretical discussions on market transition, gender inequality, and digitalisation.

One of the main implications of the results is that online platforms are more likely to reorganize, not to destroy, the traditional ways of income inequality. The initial market transition theories proposed that discrimination could be decreased through market oriented reforms where administrative allocation could be substituted with competitive mechanisms. Nevertheless, the argument has always been refuted by evidence of wage inequality research, which has shown that discrimination and segmentation continues to exist in the market situations (Shen & Deng, 2008; Gustafsson and Li, 2000). The same seems to be the case with the platform economy. Although platforms focus on the meritocratic ideas of performance ratings and flexible participation, it has been empirically shown that the given measures tend to favor the workers who have a higher level of availability over time, fewer care commitments, and better social capital, which is also unequally distributed by gender and social groups (Han et al., 2024).

The result of platform-mediated labor that appears especially relevant is gender wage inequality. The fact that gender pay gaps are still a persistent problem in the gig economy highlights what flexibility as an avenue to equality can accomplish. Though flexible work arrangements would be touted as advantageous to women particularly those who have to juggle both their paid employment and family life, the results indicate that flexibility can be traded at the expense of income security and earning potential. Li and Xu (2022) emphasize the importance of fertility intentions and family issues on the decisions of women on labor supply, and consequently on their participation in platform work. Such dynamics, along with algorithmic systems rewarding constant availability and peak-hour work, may be systematically discriminatory against women, further confirming gender wage disparities reported in both the conventional and digital labour market (Bai et al., 2022; Iwasaki and Ma, 2020).

The effects of inequality of digital platforms are also further conditioned by labor markets segmentation. The studies on the segmentation of ownership sector and the exclusion of hukou group prove that the entry in the labor market is unequal among workers (Ma, 2018; Qin et al., 2016). Platform labor tends to draw workers who are already marginalized within the formal job setups such as migrants and people locked out of the stable and well-paid jobs. Although platforms offer income opportunities to all these groups, the group of disadvantaged workers will be concentrated on low-paid and highly competitive digital positions, which might increase income dispersion. Li et al. (2024) demonstrate that segmentation continues to be a potent predictor of wage outcomes, and thus indicative of the fact that digital platforms overlay novel types of inequality with founding institutional inequalities.

Education and its impact in reducing income inequality in platform labor market is also a critical issue that should be critically viewed. The traditional human capital theory argues that education increases productivity and income and thus minimizes inequality. Nevertheless, the situation suggests that the returns to education are considerably different depending on sector and gender in China (Hannum, 2005; Li, Hu, and Jin, 2025). Platform-specific skills, ratings and algorithmic visibility might be less directly rewarded in platform economies than traditional educational qualifications are. The transformation has a potential to undermine the equalizing power of education especially among women and those with underprivileged backgrounds where their qualifications do not necessarily translate into an increase in platform earnings.

Another important aspect of inequality in digital platform economies is governance and transparency. It is in the interest of these algorithmic management systems to decide who gains access to what, at what cost, and based on what performance, but transparency and accountability is commonly lacking in these systems. Liu et al. (2025) note that discriminatory findings may be veiled by opaque types of AI systems, and workers will have trouble detecting such unfair treatment and confronting it. The examples of governance structures offered in the literature focus on the need to preserve explainability and the design that should be human-centered, but they are minimally implemented in labor platforms, which poses the question of accountability (Akhtaruzzaman & Samira Alam, 2025). In the absence of proper supervision, algorithmic management runs the risk of institutionalizing inequality in the era of technological objectivity.

### CONCLUSION

This paper has explored the role of the digital platform in the wage disparity in China by synthesizing the available literature on gender wage discrepancy, division of labor as well as digitalisation. It has been shown in the analysis that digital platforms are not neutral in their impact on the restructuring of the labour markets, but instead, they act within and refer to the deeply rooted institutional and social systems. Consequently, platform-based work tends to recreate and in any case, exacerbate preexisting income disparities.

Among the most important conclusions, it is necessary to note that gender inequality is still considered to be one of the primary characteristics of income distribution both in traditional and digital labor markets. In spite of the flexibility and opportunity offered, platform work has failed to eradicate gender wage disparities. Rather, algorithmic management systems, coupled with unequal care responsibilities and discriminating norms, are one of the reasons behind the constant earnings gap between men and women (Han et al., 2024; Bai et al., 2022). These results are consistent with the more extensive evidence that market-based processes are not enough to address the issue of gender discrimination in wage-setting (Iwasaki and Ma, 2020; Shen and Deng, 2008).

The article also demonstrates the timelessness of segmentation in the labor market in influencing the result of inequality. Digital platforms are not an autonomous institution that exists outside the normal institutional setup including a differentiation of ownership sector and hukou-based exclusion. The presence of workers who already occupy disadvantaged groups increases the likelihood of employing low-paid platform jobs, which strengthens the polarization of incomes (Qin et al., 2016; Li et al., 2024). This observation disputes the idea of platform economies as equalizing powers and in fact, implies that the latter might solidify structural inequalities. Education, which is regarded as one of the major avenues towards upward mobility seems to have a less clear role in the platform economy. Higher education is still beneficial in some areas, however, its returns are unequal and gendered, which means that it cannot help lessen inequality in digital labor markets (Hannum, 2005; Li, Hu, and Jin, 2025). Westfield metrics like ratings and algorithmic visibility can also further undermine the importance of formal qualifications, especially in structural disadvantaged workers.

### REFERENCE

- [1] Han, J., Li, M., Li, S., & Hu, Y. (2024). The widening gender wage gap in the gig economy in China: the impact of digitalisation. *Humanities and Social Sciences Communications*, 11(1), 1-16. <https://doi.org/10.1057/s41599-024-04172-1>
- [2] Bai, W., Lee, Y. L., Liao, J., Wu, L., Xie, M., & Zhou, T. (2022). The gender pay gap in China: Insights from a discrimination perspective. *arXiv preprint arXiv:2206.09306*. <https://doi.org/10.48550/arXiv.2206.09306>
- [3] Chen, Z., Ge, Y., Lai, H., & Wan, C. (2013). Globalization and gender wage inequality in China. *World Development*, 44, 256-266. <https://doi.org/10.1016/j.worlddev.2012.11.007>
- [4] Li, M., Tang, Y., & Jin, K. (2024). Labor market segmentation and the gender wage gap: Evidence from China. *Plos one*, 19(3), e0299355.
- [5] Qin, M., Brown, J. J., Padmadas, S. S., Li, B., Qi, J., & Falkingham, J. (2016). Gender inequalities in employment and wage-earning among internal labour migrants in Chinese cities. *Demographic Research*, 34, 175-202.
- [6] Ma, X. (2018). Ownership sector segmentation and the gender wage gap in urban China during the 2000s. *Post-Communist Economics*, 30(6), 775-804.
- [7] Li, M., & Xu, X. (2022). Fertility intentions for a second child and their influencing factors in contemporary China. *Frontiers in Psychology*, 13, 883317. <https://doi.org/10.3389/fpsyg.2022.883317>
- [8] Iwasaki, I., & Ma, X. (2020). Gender wage gap in China: a large meta-analysis. *Journal for Labour Market Research*, 54(1), 17.
- [9] Shen, J., & Deng, X. (2008). Gender wage inequality in the transitional Chinese economy: A critical review of post-reform research. *Journal of Organisational Transformation & Social Change*, 5(2), 109-127.
- [10] Akhtaruzzaman Khan, A. K., Sumon Shikdar, S. S., & Rakib Hassan Rimon, R. H. R. (2024). Human-Centered Process Mining With Generative-Ai for Sustainable and Energy-Efficient Agriculture Systems. *Human-Centered Process Mining With Generative-Ai for Sustainable and Energy-Efficient Agriculture Systems*, 1(8), 114-139.
- [11] Liu, P. W., Meng, X., & Zhang, J. (2000). Sectoral gender wage differentials and discrimination in the transitional Chinese economy. *Journal of Population Economics*, 13(2), 331-352.
- [12] Hannum, E. (2005). Market transition, educational disparities, and family strategies in rural China: New evidence on gender stratification and development. *Demography*, 42(2), 275-299. <https://doi.org/10.1353/dem.2005.0014>
- [13] Li, M., Tang, Y., & Jin, K. (2024). Labor market segmentation and the gender wage gap: Evidence from China. *Plos one*, 19(3), e0299355. <https://doi.org/10.1371/journal.pone.0299355>
- [14] He, Y., & Goncalves, M. V. (2025). Mapping Gender Pay Disparities in Chinese Finance: A Systematic Literature and Bibliometric Review. *Administrative Sciences*, 15(9), 370.
- [15] Gustafsson, B., & Li, S. (2000). Economic transformation and the gender earnings gap in urban China. *Journal of Population Economics*, 13(2), 305-329.
- [16] Akhtaruzzaman, K., & Samira Alam, C. (2025). A Governance and Accountability Framework for Generative-Ai-Assisted Process Mining in Adaptive Enterprise Workflows. *American Journal of Technology Advancement*, 2(11).
- [17] Li, M., Hu, X., & Jin, K. (2025). The Return on Education and the Gender Wage Gap in China: A Sector Perspective. *SAGE Open*, 15(2), 21582440251327015.
- [18] Zhu, M. (2025). A Bibliometric Analysis of Gender Wage Gap Research from an Inter-disciplinary Perspective. *Futurity Education*, 5(1), 131-150.
- [19] Li, M., Hu, X., Jin, K., & Han, J. (2025). Exploring factors influencing entry into the gig economy: A study of Chinese workers. *Acta Psychologica*, 259, 105301. <https://doi.org/10.1016/j.actpsy.2025.105301>
- [20] Akhtaruzzaman, K., Md Abul Kalam, A., Mohammad Kabir, H., & KM, Z. (2024). Driving US Business Growth with AI-Driven Intelligent Automation: Building Decision-Making Infrastructure to Improve Productivity and Reduce Inefficiencies. *American Journal of Engineering, Mechanics and Architecture*, 2(11), 171-198.
- [21] Jong-Wha, L. E. E., & Wie, D. (2017). Wage structure and gender earnings differentials in China and India. *World Development*, 97, 313-329.
- [22] Tan, Z., Wu, C., Hong, L., & Huang, Y. (2025). Gender Income Inequality Within and Outside the State System in China, 2003–2021: An Age–Period–Cohort Analysis. *Sustainability*, 18(1), 130. <https://doi.org/10.3390/su18010130>

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- [23] Lu, Z., Li, W., Li, M., & Chen, Y. (2019). Destination china: international students in chengdu. *International Migration*, 57(3), 354-372. <https://doi.org/10.1111/imig.12464>
- [24] Liu, X., Huang, D., Yao, J., Dong, J., Song, L., Wang, H., ... & Chu, W. (2025). From Black Box to Glass Box: A Practical Review of Explainable Artificial Intelligence (XAI). *AI*, 6(11), 285. <https://doi.org/10.3390/ai6110285>