Digital Platform Transformation and Socio-economic Resilience Among Indonesia's Motorcycle Ride-hailing Drivers

Hannin Pradita Nur Soulthoni[1], Ambo Upe[2], Shingirai Mugambiwa[3], Siti Sarawati Johar[4]

[1]Department of Social Welfare, Universitas Halu Oleo, Indonesia

[2]Department of Sociology, Universitas Halu Oleo, Indonesia

[3]Department of Research Administration and Development, University of Limpopo, South Africa

[4]Department of Social Science, Universiti Tun Hussein Onn Malaysia, Malaysia

Corresponding Author: Hannin Pradita Nur Soulthoni; Email: hanninpradita@uho.ac.id

ARTICLE INFO

ABSTRACT

The Fourth Digital Revolution has transformed Indonesia's informal transportation sector, particularly traditional motorcycle taxi drivers transitioning to digital ride-hailing platforms. This shift represents movement from location-bound, passive income generation to algorithm-driven, flexible employment. Despite widespread Grab adoption across secondary cities, limited research examines multidimensional impacts on drivers' socio-economic well-being beyond metropolitan areas. This study investigates how digital transformation affects the income and social well-being of former traditional motorcycle taxi drivers in Kendari City, a representative secondary urban area. The research employed a qualitative exploratory case study design, utilizing in-depth interviews with eight primary informants who transitioned to the Grab platform, supplemented by community leaders and driver representatives. Data collection used methodological triangulation, combining semi-structured interviews, participant observation, and document analysis over three months. Analysis followed Braun and Clarke's thematic framework, integrating Digital Transformation Theory, Platform Economy Theory, and Social Impact Theory. Findings reveal substantial positive impacts across multiple dimensions. Economically, drivers experienced significant income improvements, enhancing financial stability and predictability. Beyond monetary gains, digitalization strengthened social well-being through improved access to children's education and healthcare, greater work-life balance, and enhanced psychological well-being through reduced income uncertainty. However, challenges emerged regarding platform commission fees and technological dependence. Digital transformation through ride-hailing platforms serves as a powerful economic empowerment instrument, significantly improving income security and multidimensional social well-being. The transition constitutes a structural transformation reducing informal sector uncertainties while providing occupational autonomy, offering evidence-based insights for inclusive digital transformation policies.

INTRODUCTION

The Fourth Digital Revolution has fundamentally transformed the global economic landscape, creating a new paradigm in business models and labor structures (Nadkarni & Prügl, 2021; Schallmo & Williams, 2018). Digital economy platforms, defined as technological infrastructures that facilitate interactions between two or more user groups, have served as catalysts for the transformation of the transportation sector worldwide (Sáenz-Leandro & Fernández-Ardèvol, 2024; Ramizo Jr & Chotib, 2020). This phenomenon is not limited to developed countries but has also extended to developing nations, including Indonesia, with significant implications for the socio-economic structure of society (Dewi & Brillianti, 2024).

In Indonesia, the informal transportation sector, particularly traditional motorcycle taxis, has undergone massive disruption since the introduction of ride-hailing platforms such as Grab in 2014 (Paundra et al., 2020). This transformation reflects a global trend in which digital technologies are reshaping informal work into a more structured component of the gig economy (Malawani et al., 2020). According to data from the Indonesian Fintech Association 2021, the ride-hailing industry in Indonesia has recorded an annual growth rate of 25% and contributed 0.8% to the national GDP, underscoring the economic significance of this transformation (Annur, 2020).

Research on the impact of digital platforms on informal transportation drivers has expanded rapidly over the past decade. A pioneering study in the United States identified that digital platforms create 'entrepreneurial labor,' which offers flexibility but simultaneously introduces new forms of precarity (Dif-Pradalier et al., 2023). In the Southeast Asian context, Hania Cholily (2022) found that online motorcycle taxi drivers in Semarang, Indonesia, experienced an average income increase of 40–60% compared to traditional motorcycle taxi drivers. Similarly, Ma et al. (2022) in Shanghai, China, confirmed that digital platforms enhance resource allocation efficiency in the informal transportation sector through sophisticated matching algorithms.

Despite these advances, the current body of research remains constrained by several critical limitations. First, its geographic concentration on metropolitan areas neglects secondary cities, which often possess distinct socio-economic dynamics and may experience platform-driven disruptions differently (Sang et al., 2019). Second, the dominance of quantitative-centric methodologies limits the analytical depth needed to capture the complex, multidimensional aspects of social well-being (Joshi, Jain, & Gupta, 2024).

Finally, the narrow temporal scope largely restricted to the early adoption phase of digital platforms has left the medium and long-term consequences of this transformation underexplored (Mitropoulos et al., 2021). These gaps highlight the urgent need for more context-sensitive, methodologically diverse, and longitudinal studies to better understand the broader socio-economic implications of digital platforms in informal transportation sectors (Dedema & Rosenbaum, 2024).

This study draws upon three complementary perspectives: Digital Transformation Theory, which explains how digital technologies reshape organizational structures and value creation (Westerman et al., 2011); Platform Economy Theory, which highlights intermediation mechanisms and network effects driving efficiency and scalability (Kowalski, 2020); and Social Impact Theory, which extends the analysis beyond economic outcomes to encompass multidimensional aspects of social well-being (Bharadwaj et al., 2013).

The academic contribution of this study lies in three main aspects: a geographical contribution through its focus on a secondary city (Kendari), which represents the majority of urban areas in Indonesia yet remains underexplored in the literature; a theoretical contribution through the integration of three theoretical frameworks to analyze the multidimensional impacts of digitalization; and a methodological contribution through the use of an in-depth qualitative approach, enabling the exploration of nuanced impacts often overlooked in quantitative studies (Setyono et al., 2016).

Preliminary data from the Kendari City Department of Transportation 2022 indicate that 78% of traditional motorcycle taxi drivers transitioned to digital platforms between 2018 and 2022, with the Wowawanggu district recording the highest adoption rate (85%) (Soeparyanto, Royani, Arsyad, & Statiswaty, 2023). This phenomenon reflects a significant structural transformation that has not yet been adequately documented in academic research. Empirical observations suggest that drivers' average daily income increased from IDR 75,000 (traditional motorcycle taxis) to IDR 250,000 (digital platforms), demonstrating a substantial economic impact (Swastika et al., 2022). However, beyond economic metrics, there are indications of changes in work-life balance, access to social services, and overall well-being, which warrant systematic investigation.

Based on this gap analysis and empirical justification, the study addresses a central research problem: how digital transformation through ride-hailing platforms affects the multidimensional well-being of traditional motorcycle taxi drivers in

Indonesia's secondary cities. Specifically, it examines how digitalization reshapes income generation patterns, how it influences social well-being in terms of education, health, and family stability, and what challenges and opportunities drivers face during the transition from traditional to digital platforms.

This study is expected to contribute at three levels: academically, by enriching the literature on the impacts of digital transformation in developing country contexts (Díaz-Arancibia et al., 2024); at the policy level, by providing evidence-based insights to inform policies supportive of inclusive digital transformation (Mettler et al., 2024); and at the practical level, by offering recommendations for platform optimization that account for driver welfare and sustainable ecosystem development (Alnaggar et al., 2024). By focusing on Kendari as a representative secondary city in Indonesia, the research aims to generate insights that are transferable and scalable to similar urban contexts in Indonesia and other developing countries, thereby contributing to a broader understanding of the role of digital platforms in transforming the informal sector.

METHODS

This study employs a qualitative approach with an exploratory case study design to analyze the impact of digital transformation on the income and socio-economic well-being of traditional motorcycle taxi drivers transitioning to the Grab platform. The qualitative approach was chosen to capture the complexity of drivers' subjective experiences in navigating the structural shift from traditional systems to digital platforms (Creswell & Poth, 2017). The exploratory case study design was adopted, given that the digitalization of motorcycle taxis in Indonesia's secondary cities remains relatively underexplored in the academic literature, thus requiring in-depth investigation to generate rich descriptions and theoretical insights (Hollweck, 2015).

The research was conducted in Wowawanggu Sub-district, Kadia District, Kendari City, Southeast Sulawesi Province. The site was selected based on three criteria aligned with the study's objectives: (1) a high level of digital platform adoption, with 85% of traditional motorcycle taxi drivers in the area having transitioned to digital platforms according to

Statistics Indonesia (BPS, 2023); (2) the city's status as a secondary urban area representative of the majority of Indonesian cities, contrasting with the more frequently studied metropolitan areas (Herawatie et al., 2024); and (3) accessibility and openness of the driver community to participate in research, which was confirmed through a preliminary study conducted in March 2025 (Rizkidarajat et al., 2023).

The study participants consisted of two categories of informants, selected through purposive sampling based on specific criteria (Etikan, 2016). Primary informants were drivers who had transitioned from traditional motorcycle taxi systems to the Grab platform, with eligibility requirements including at least two years of prior experience as traditional drivers, a minimum of one year of active engagement with the Grab platform, residency in Wowawanggu, and willingness to provide open information. Eight primary informants were selected, representing variation in age (25–55 years), work experience, and socio-economic status.

Secondary informants included two community leaders and six representatives from local driver associations with in-depth knowledge of the socio-economic transformations in the study area. The number of informants was determined using the principle of data saturation, whereby data collection ceased when no new significant information emerged (Guest et al., 2020).

Data collection employed methodological triangulation to ensure validity and reliability. The primary technique was in-depth interviews guided by an interview protocol validated through expert judgment. Interviews were conducted between April and June 2025, lasting 60-90 minutes per session, and carried out in either Indonesian or the local language, depending on informant preference to ensure comfort and openness. Participant observation was conducted to capture drivers' daily activities, interactions with the application, and social dynamics within the driver community. These observations were carried out over three months, 2-3 times per week, at different times of day (morning, afternoon, evening) to provide a comprehensive picture of routines and challenges faced by drivers. Secondary documentation was collected from diverse sources, including reports from the Kendari Department of Transportation, statistics from Statistics Indonesia, company reports

from Grab Indonesia, and drivers' personal records (e.g., daily income logs, app screenshots), with informants' consent.

The primary instrument in this qualitative research was the researcher (human instrument), supported by a structured yet flexible interview guide (Lincoln et al., 1985; Patton, 2015). The guide was developed based on the study's theoretical framework and consisted of four main themes: experiences of transitioning from traditional motorcycle taxis to digital platforms, changes in income patterns and financial management, impacts on social well-being and family dynamics, and challenges and coping strategies in using digital technologies. Instrument validity was ensured through expert review by three academics specializing in digital transformation and qualitative research methodology. Pilot testing was also conducted with two informants to confirm the clarity and cultural appropriateness of the questions (Creswell & Poth, 2017).

Data analysis followed Braun & Clarke (2006) thematic analysis framework using a systematic six-phase approach. The first phase was familiarization with the data through verbatim transcription of all interviews and repeated readings to capture overall patterns. The second phase involved initial coding, where data were coded line by line to identify meaningful units relevant to the research questions. The third phase, searching for themes, grouped similar codes into potential themes. The fourth phase was reviewing themes to ensure internal homogeneity and external heterogeneity across themes. The fifth phase involved defining and naming themes by providing clear operational definitions. The final phase was producing the report, integrating the analysis with the theoretical framework and existing literature.

RESULTS AND DISCUSSION
The Impact of Digitalization on Drivers' Income and Economic Well-being

Before the era of massive digitalization, the informal transportation landscape, particularly the motorcycle taxi stand sector in Indonesia, was characterized by a rudimentary yet highly constrained business model (Palevsky, 2019). Drivers operated within an ecosystem heavily dependent on physical locations (stands), inflexible operating hours, and a passive passenger acquisition mechanism (waiting) (Suatmadi et al., 2019). Although this system had long served as the backbone of mobility in many areas, it inherently produced extreme income uncertainty (Aritenang, 2024). Daily earnings were highly volatile, influenced by unpredictable external variables such as weather conditions, peak traffic hours, local events, and competition within a given stand (Hakzah et al., 2022).

An interview with Mr. Hadi vividly illustrates this reality. He explained: "In the past, I had to wait for passengers at the stand, sometimes an entire day without a single customer. Now, with Grab, I can get passengers anytime, and my income is more certain." (Hadi, 2025). His statement is not merely anecdotal but reflects the collective experience of thousands of traditional motorcycle taxi drivers. The traditional model required drivers to invest significant amounts of time in a fixed location, hoping for passing customers. This passive, supply-driven model implied high inefficiency and considerable potential income loss on slow days.

The theory of digital transformation proposed by Westerman et al. (2011) emphasizes that digitalization is not simply about technology adoption, but about profound changes in how organizations operate, interact with customers, and create value. In the context of motorcycle taxis, digital platforms such as Grab have enabled precisely this type of transformation (Hakzah et al., 2022). The online ride-hailing business model shifts the paradigm from "waiting for customers" to "finding customers" proactively through algorithms and data (Murphy, 2016). With the Grab application, drivers are no longer tied to a physical stand. They can receive orders from multiple locations even while in transit or at home, thus enabling route optimization and unprecedented time efficiency. This minimizes idle time and maximizes the number of trips per day, directly correlating with income growth (Meskar et al., 2023).

This income increase is not incidental, but rather structurally embedded within the platform's architecture. Ms. Rina, another driver who transitioned to Grab, provides compelling quantitative evidence: "My income is now more certain, and even higher than when I was a stand-based driver. From IDR 70,000 per day, I now earn between IDR 150,000 and 250,000 per day." (Rina, 2025). This nearly threefold increase is a significant

indicator of digital economic impact. Within the digital economy, platforms enhance market transparency and efficiency: customers can easily order rides, and drivers can be readily located. The rating and review system further introduces accountability mechanisms, fostering trust and encouraging more transactions. In this sense, the platform functions as an intelligent intermediary, matching supply (drivers) and demand (passengers) in real time and at a scale unimaginable in the traditional model.

Moreover, digitalization through Grab reduces the information asymmetry common in traditional markets. Previously, stand-based drivers lacked accurate information about potential demand in other areas or even standard pricing benchmarks. With the application, drivers gain access to data on demand hotspots, estimated earnings per trip, and customer behavior patterns. Such information enables more informed and strategic decision-making regarding when and where to work, thereby improving productivity and income.

This transformation can also be examined through the lens of Network Theory. As more drivers join the platform, service coverage expands, attracting more passengers. Conversely, as more passengers use the platform, more job opportunities are created for drivers. This reciprocal relationship produces positive network effects that reinforce platform sustainability and growth, thereby expanding income opportunities for drivers. Thus, digitalization not only alters individual work practices but also reconstructs market structures, creating a more dynamic and productive ecosystem for drivers (Frenken & Schor, 2017). Consistent evidence from interviews confirms that this income increase is not anecdotal but rather a general pattern among drivers who have transitioned, underscoring that digital platforms provide a more efficient and transparent pathway to earning a livelihood.

The Impact of Digitalization on Social Well-being

The impact of digitalization extends beyond purely economic metrics, reaching into dimensions of social well-being that are often overlooked in conventional economic analyses. Before the emergence of online ride-hailing platforms, the income uncertainty inherent in the stand-based motorcycle taxi model had adverse ripple effects on drivers' personal and family lives. Meeting basic needs such as ensuring adequate nutrition, providing children with access to quality education, and securing healthcare was often a constant struggle. These conditions generated significant psychological and social pressures that gradually eroded the overall quality of life.

The testimony of Mr. Faisal reflects a fundamental shift in this regard: "With higher income, I feel more at ease, I can send my children to school, and I have easier access to healthcare" (Faisal, 2025). The sense of calm he described is a manifestation of greater financial security. Stable and higher earnings enable families to allocate resources toward long-term investments, particularly in children's education. Improved education for the next generation represents a cornerstone of long-term social well-being, breaking cycles of poverty and uncertainty. Furthermore, easier access to healthcare encompasses not only treatment but also proactive prevention and health maintenance critical to sustaining productivity and quality of life.

The Theory of Digital Impact, which emphasizes outcomes beyond economic performance alone, is highly relevant here (Bharadwaj et al., 2013). This framework argues that digital transformation enhances quality of life through several channels: reducing social inequality, empowering individuals, and expanding access to essential services. In the case of online motorcycle taxis, digital platforms have democratized access to work (Hall & Krueger, 2018). With a motorcycle and a smartphone, individuals can now earn a livelihood more effectively, regardless of formal educational background or social connections. This constitutes a significant form of economic empowerment. Drivers who were previously marginalized in the formal economy now have more direct pathways to participation and sustainable income.

Digitalization has also introduced a revolutionary concept of work flexibility for ojek drivers. The traditional stand-based model required long hours of physical presence at specific locations, limiting drivers' ability to attend to personal or family matters. In contrast, online ride-hailing platforms grant drivers greater control over their schedules. They can decide when to go online or offline, allowing them to balance work demands with personal life responsibilities.

Ms. Rina provides a poignant example of this benefit: "I can manage my time without being tied to one place. If my child is sick, I can stay at home without worrying about losing income" (Rina, 2025). Her account highlights profound impacts on mental and emotional well-being. The ability to be present for family during critical moments, such as a child's illness, is a fundamental human need often sacrificed under rigid work conditions. Flexibility reduces work-related stress and anxiety, enhances feelings of autonomy and control, and contributes to healthier work-life balance, an increasingly central concern in modern societies.

Social well-being is also reflected in enhanced self-esteem and dignity. With more stable earnings and recognition via customer rating systems, drivers perceive their work as more valued. Ms. Siti, another driver, noted: "My income is higher now, I can save for the future, and I feel more respected in my work" (Siti, 2025). Recognition is a vital determinant of psychological well-being. Customer ratings and reviews provide immediate validation of performance, an element absent in the traditional stand-based model. This feedback loop not only elevates drivers' sense of dignity but also incentivizes higher service quality, producing a cycle of mutual benefits for both drivers and passengers.

Another crucial dimension is financial inclusion. Many stand-based drivers previously lacked access to formal financial products such as savings accounts or bank loans, largely due to unstable and undocumented earnings (Shaikh et al., 2023). With more stable and recorded income streams through digital platforms, drivers are increasingly considered "bankable," gaining entry to broader financial opportunities and economic safety nets (Baker, 2021). This represents an important step toward reducing inequality and enhancing upward socio-economic mobility (Rayhan et al., 2024). Collectively, these outcomes signify that digitalization improves drivers' quality of life holistically from material well-being to psychological empowerment, thereby reshaping not only their economic trajectories but also their social resilience and dignity (Nurrahmad et al., 2023).

Digitalization and Its Effects on the Income and Socio-Economic Conditions of Conventional to Grab-Based Motorcycle Taxi Drivers

An in-depth analysis of the impact of digitalization on stand-based motorcycle taxi drivers transitioning to online ride-hailing platforms such as Grab reveals a complex narrative, yet one largely characterized by significant improvements in income and socio-economic well-being. The findings of this study consistently demonstrate that this transition represents not merely a shift in occupational mode but a structural transformation that offers meaningful opportunities for enhancing quality of life. Qualitative data from interviews reinforce these insights, with the majority of drivers reporting stable and substantial income gains that, in turn, act as catalysts for improved access to social services and economic safety nets that were previously difficult to obtain.

The most immediate and measurable impact of digitalization lies in income enhancement. With access to a considerably broader customer base via mobile applications, drivers are no longer bound by geographic limitations or dependent on chance encounters. Sophisticated matching algorithms ensure that drivers can identify passengers more quickly and efficiently, thereby maximizing the number of trips completed within a given timeframe. This represents a tangible manifestation of the "gig economy," where technology creates flexible and scalable income opportunities. Increased earnings translate directly into enhanced purchasing power, enabling drivers to meet basic needs that were previously deferred or unmet. These include improvements in household nutrition, investments in children's education, and expanded access to healthcare services, as illustrated by the testimony of Mr. Faisal. In this sense, higher income functions as a foundation for multidimensional improvements in quality of life, reflecting a form of economic empowerment at the micro level.

Beyond income, the flexibility afforded by digital platforms constitutes an invaluable asset. The ability to self-manage working hours, as emphasized by Ms. Rina, who noted she could stay at home when her child was ill, provides drivers with meaningful occupational autonomy. Such autonomy is not merely a matter of convenience but is central to reducing stress and enhancing

psychological well-being. Drivers are no longer constrained by rigid routines that prevented them from fulfilling personal or familial obligations. Greater financial security, combined with the capacity to balance work and personal life, contributes to reduced anxiety and enhanced life satisfaction overall. These outcomes resonate with established theories in occupational psychology, which emphasize the critical role of control over one's work environment in maintaining mental health.

Nevertheless, it is important to acknowledge and critically assess the challenges that accompany digitalization. Two primary issues emerged from interviews: platform commission fees and technological dependence. While gross earnings have generally increased, the percentage retained by the platform can significantly reduce net income. This raises concerns about fairness in value distribution within the platform economy. Given that platform business models often operate with variable cost structures shaped by factors such as time, location, and service type, drivers may face difficulty in accurately calculating their net earnings. Greater transparency in commission structures, along with fairer incentives or negotiations, represents an important area for improvement to safeguard drivers' sustainable welfare. This issue also contributes to broader debates on "precarious work" in the gig economy, where flexibility often comes at the expense of weaker social protections and job security compared to formal employment. As such, platforms like Grab must consider more equitable and transparent policies regarding fees imposed on drivers.

The second challenge pertains to technological dependence. Reliance on smartphones, internet connectivity, and user familiarity with application interfaces can present significant barriers, especially for first-time adopters. Moreover, technical disruptions such as server outages, software updates, or hardware malfunctions can directly impede drivers' ability to work and earn income. These risks underscore the importance of digital literacy and adequate technical support to ensure inclusive participation across diverse socio-economic groups in the digital economy.

Despite these challenges, the positive impacts of digitalization through Grab overwhelmingly outweigh the constraints. Drivers now benefit from structured and stable income streams, broader access to customer bases, and unprecedented flexibility in working arrangements. The effects are multidimensional, extending beyond economic gains to reinforce household social safety nets, improve access to education and healthcare, and enhance drivers' psychological well-being and self-esteem. With more structured systems, drivers report feeling more valued and secure, thereby reducing the uncertainty that characterized the traditional motorcycle taxi drivers' model.

Ultimately, digitalization has transformed motorcycle taxis from a purely transport service into a more dynamic and inclusive business model. This case demonstrates how technology can empower individuals, mitigate vulnerabilities in informal labor markets, and substantially improve the quality of life among marginalized groups. While ongoing attention is needed to address concerns over commission fees and technological accessibility, the evolution of traditional motorcycle taxi drivers into online ride-hailing represents a pivotal chapter in Indonesia's digital transformation narrative, one that highlights the potential of technology to generate both economic and social opportunities at scale.

Table 1. Income Comparison and the Impact of Digitalization on Stand-Based Motorcycle Taxi Drivers Transitioning to Grab Online

Driver Name	Before Transition to Online (Daily Income)	After Transition to Online (Daily Income)	Experience and Impact of Digitalization
Mr. Hadi	IDR 50.000 - 100.000	IDR 100.000 - 250.000	More customers, more predictable income, and no longer required to wait at the base station.
Mrs. Rina	IDR 70.000	IDR 150.000 - 250.000	Greater work flexibility, improved ability to meet family needs.
Mr. Faisal	IDR 50.000 - 100.000	IDR 100.000 - 400.000	More stable income, peace of mind from being able to support children's education, and access to healthcare.
Mrs. Siti	IDR 60.000	IDR 120.000 - 200.000	Higher earnings, ability to save for the future, increased sense of respect in her occupation.

Source: Primary Data Processed, 2025

Table 1 provides a curated selection of narratives from four of the eight principal informants, chosen to exemplify the multifaceted transformations experienced by traditional motorcycle taxi drivers upon their integration into the Grab ride-hailing ecosystem in Kendari City. The daily earnings data, collected through interviews conducted between April and June 2025, represent drivers' subjective assessments of the economic and social consequences following platform adoption.

A consistent theme across these accounts is a marked increase in earnings, with daily income escalating from a traditional baseline of IDR 50,000–100,000 to a platform-mediated range of IDR 100,000–400,000. These self-reported income changes align with broader narratives across all study participants and corroborate experiences documented in Kendari by Swastika et al. (2022). Beyond monetary dimensions, thematic analysis of the qualitative testimonies elucidates three interconnected domains of transformation: greater income predictability, enhanced work-life flexibility, and improved access to social services.

The individual testimonies offer deeper insight into these changes. Mr. Hadi's account demonstrates the transition from a static, location-dependent income model to a dynamic, algorithmically-mediated system that eliminates the prolonged waiting times endemic to traditional stands, a constraint documented by Palevsky (2019). Mrs. Rina's narrative highlights the value of scheduling autonomy, which enables the integration of income generation with familial caregiving responsibilities, thus providing context-specific Indonesian perspectives on platform work autonomy discussed by Hall & Krueger (2018). Mr. Faisal's experience illustrates how enhanced earnings directly facilitate improved educational and healthcare access for his children, exemplifying the multidimensional social impact of digital transformation conceptualized by Bharadwaj et al. (2013). Mrs. Siti's emphasis on renewed occupational dignity and capacity for financial planning reflects how digitalization reshapes drivers' self-perception and social standing (Nurrahmad et al., 2023; Rayhan et al., 2024).

It is important to situate these largely favorable accounts within the broader context of the study's findings. As elaborated in the Results and Discussion section, informants acknowledged significant challenges, including platform commission structures and technological dependence issues that resonate with scholarly discourse on precarity in the gig economy (Dif-Pradalier et al., 2023; Dedema & Rosenbaum, 2024). Nevertheless, the experiences documented in Table 1 offer robust qualitative support for the study's central argument: that ride-hailing platform adoption has profoundly altered the socioeconomic landscape for traditional motorcycle taxi drivers, generating meaningful pathways toward enhanced quality of life despite inherent platform constraints (Dewi & Brillianti, 2024; Herawatie et al., 2024). Ultimately, Table 1 functions as a qualitative

representation of lived experiences rather than a statistical summary, contributing context-specific empirical evidence on platform-driven transformation in Indonesia's secondary cities and similar developing country contexts.

CONCLUSION

This study concludes that the digital transformation through the Grab platform has fundamentally enhanced the income and socio-economic well-being of stand-based motorcycle taxi drivers in Kendari City. The transition from a passive and uncertain work model to a more proactive and structured system has significantly increased drivers' daily earnings, serving as a foundation for holistic improvements in quality of life. This economic enhancement directly translates into better access to essential services such as children's education and healthcare, while also providing greater financial security. Beyond material gains, digital platforms grant drivers unprecedented autonomy and work flexibility, enabling them to balance professional responsibilities with family obligations, ultimately improving their psychological well-being and overall life satisfaction.

Although the positive impacts are predominant, this study also identifies inherent challenges within the gig economy ecosystem, particularly concerning platform commission fees and technological dependence. These issues highlight new forms of vulnerability and underscore the need for fairer platform policies to ensure drivers' sustainable welfare. Nevertheless, the overall benefits far outweigh these constraints. This transformation demonstrates that digital platforms can serve as powerful instruments of economic empowerment, reduce uncertainty in the informal sector, and foster upward social mobility in mid-sized Indonesian cities.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this paper.

REFERENCES

1. Alnaggar, A., Gzara, F., & Bookbinder, J. H. (2024). Compensation guarantees in crowdsourced delivery: Impact on platform and driver welfare. *Omega*, *122*, 102965.

2. Annur, C. M. (2020). Naik Hampir 4 Kali, Fintech Pembiayaan Sumbang Rp 100 T ke PDB 2020. In *Indonesian Fintech Association*.

3. Aritenang, A. F. (2024). The crucial role of motorcycle-based ride-hailing among commuters: The case of Jakarta and Bandung metropolitan areas. *Journal of Public Transportation*, *26*, 100082.

4. Badan Pusat Statistik Indonesia. (2023). *Kota Kendari Dalam Angka 2023*.

5. Baker, L. (2021). Everyday experiences of digital financial inclusion in India's 'micro-entrepreneur' paratransit services. *Environment and Planning A: Economy and Space*, *53*(7), 1810–1827.

6. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital Business Strategy: Toward a Next Generation of Insights. *MIS Quarterly*, *37*(2), 471–482.

7. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101.

8. Creswell, J. W., & Poth, C. N. (2017). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (4th ed.). SAGE Publications, Inc.

9. Dedema, M., & Rosenbaum, H. (2024). Socio-technical issues in the platform-mediated gig economy: A systematic literature review: An Annual Review of Information Science and Technology (ARIST) paper. *Journal of the Association for Information Science and Technology*, *75*(3), 344–374.

10. Dewi, A. A. K, & Brillianti, D.F. (2024). Socio-Economic Impact of the Emergence of Online Transportation in Indonesia: Opportunities and Challenges. *Journal of Scientific Research, Education, and Technology (JSRET)*, *3*(4), 1701–1712.

11. Díaz-Arancibia, J., Hochstetter-Diez, J., Bustamante-Mora, A., Sepúlveda-Cuevas, S., Albayay, I., & Arango-López, J. (2024). Navigating Digital Transformation and Technology Adoption: A Literature Review from Small and Medium-Sized Enterprises in Developing Countries. *Sustainability*, *16*(14), 5946.

12. Dif-Pradalier, M., Jammet, T., Tiberghien, J., Bignami, F., & Cuppini, N. (2023). Platforms in the city and cities at the service of platforms:

An urban perspective on the platform economy and workers' responses. *The Economic and Labour Relations Review*, *34*(4), 637–650.

13. Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1.

14. Frenken, K., & Schor, J. (2017). Putting the sharing economy into perspective. *Environmental Innovation and Societal Transitions*, *23*, 3–10.

15. Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, *15*(5), e0232076.

16. Hakzah, H., Yusuf, S., & Pawelloi, A. I. (2022). The Importance of Motorcycle Taxi Transport of Agricultural Products and Operator Income in Indonesia. *The Open Transportation Journal*, *16*(1).

17. Hall, J. V., & Krueger, A. B. (2018). An Analysis of the Labor Market for Uber's Driver-Partners in the United States. *ILR Review*, *71*(3), 705–732.

18. Hania Cholily, V. (2022). Analysis of the Effect of Working Hours, Type of Vehicle, Age, and Education on Income for Formal and Informal Workers. *Jurnal Indonesia Sosial Sains*, *3*(3), 507–526.

19. Herawatie, D., Siswanto, N., & Widodo, E. (2024). Motorcycle Taxi in Shared Mobility and Informal Transportation: A Bibliometric Analysis. *Journal of Information Systems Engineering and Business Intelligence*, *10*(2), 250–269.

20. Hollweck, T. (2015). Case Study Research Design and Methods (5th ed.). *Canadian Journal of Program Evaluation*, *30*(1), 108–110.

21. Joshi, A., Jain, S., & Gupta, P. K. (2024). Challenges and impact of the gig economy. *Sustainable Economies*, *2*(2), 96. https://doi.org/10.62617/se.v2i2.96

22. Kowalski, T. (2020). Geoffrey G. Parker, Marshall W. van Alstyne, Sangeet Paul Choundary Platform revolution. How networked markets are transforming the economy and how to make them work for you. *Studia Medioznawcze*, *1*, 139–144.

23. Lincoln, Y. S., Guba, E. G., & Pilotta, J. J. (1985). Naturalistic inquiry. *International Journal of Intercultural Relations*, *9*(4), 438–439.

24. Ma, Y., Chen, K., Xiao, Y., & Fan, R. (2022). Does Online Ride-Hailing Service Improve the Efficiency of Taxi Market? Evidence from Shanghai. *Sustainability*, *14*(14), 8872.

25. Malawani, A. D., Salahudin, S., Qodir, Z., Loilatu, M. J., & Nurmandi, A. (2020). *The Evolution of "GOJEK" as an Indonesian Urban Mobile Ride Hailing Model Study Case: Public and Government Regulatory Responses on Urban Mobile Ride Hailing* (pp. 429–438).

26. Meskar, M., Aslani, S., & Modarres, M. (2023). Spatio-temporal pricing algorithm for ride-hailing platforms where drivers can decline ride requests. *Transportation Research Part C: Emerging Technologies*, *153*, 104200.

27. Mettler, T., Miscione, G., Jacobs, C. D., & Guenduez, A. A. (2024). Same same but different: How policies frame societal-level digital transformation. *Government Information Quarterly*, *41*(2), 101932.

28. Mitropoulos, L., Kortsari, A., & Ayfantopoulou, G. (2021). A systematic literature review of ride-sharing platforms, user factors and barriers. *European Transport Research Review*, *13*(1), 61.

29. Murphy, S. F. and C. (2016). *Shared Mobility and the Transformation of Public Transit*. Transportation Research Board. https://doi.org/10.17226/23578

30. Nadkarni, S., & Prügl, R. (2021). Digital transformation: a review, synthesis and opportunities for future research. *Management Review Quarterly*, *71*(2), 233–341.

31. Nurrahmad, D., Rahmasari, S., Pradana, D., Utomo, S., Putri, M., & Afandi, A. (2023). *Dillema of Multi-Platform Ride-Hailing Drivers in Yogyakarta: Between Economic Demands and Psychological Impact in Achieving Well-Being.*

32. Palevsky, B. (2019). *Motorcycle Taxis in Jakarta, Indonesia The Case for Recognition and Integration of Motorcyle Taxis in Jabodetabek's Transportation.*

33. Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods* (4th ed.). SAGE Publications, Inc.

34. Paundra, J., van Dalen, J., Rook, L., & Ketter, W. (2020). Ridesharing platform entry effects on ownership-based consumption in Indonesia. *Journal of Cleaner Production*, *265*, 121535.

35. Ramizo Jr, G., & Chotib, C. (2020). The Social Impact of Ride-Hailing Technologies: The Experience of Passengers and Drivers in Jakarta. *Proceedings of 3rd International Conference on Strategic and Global Studies, ICSGS 2019, 6-7 November 2019, Sari Pacific, Jakarta, Indonesia.*

36. Rayhan, A., Bramantio, B. W., Pranowo, E., Rengga, F., & Herbowo, H. (2024). Case Study in Indonesia: Does the Behavior of Online Transportation Service Drivers Influence Driver Operational Performance? *Jurnal Syntax Admiration*, *5*(5), 1638–1653.

37. Rizkidarajat, W., Puspaningtyas, I. H., Romauli, N., & Maharani, A. P. (2023). Contextualization of Risk Society in the Reality of Digital Work in Purwokerto, Central Java, Indonesia. *Rev. Nuestramerica*, *22*, 1–21.

38. Sáenz-Leandro, R., & Fernández-Ardèvol, M. (2024). The politics of policy change in platform capitalism: A systematic review of the literature on the regulation of Transportation Network Companies (TNCs). *Platforms & Society*, *1*.

39. Sang, J., Li, Z.-C., Lam, W. H. K., & Wong, S. C. (2019). Design of build-operate-transfer contract for integrated rail and property development with uncertainty in future urban population. *Transportation Research Part B: Methodological*, *130*, 36–66.

40. Schallmo, D. R. A., & Williams, C. A. (2018). *Roadmap for the Digital Transformation of Business Models* (pp. 41–68).

41. Setyono, J. S., Yunus, H. S., & Giyarsih, S. R. (2016). The Spatial Pattern Of Urbanization and Small Cities Development in Central Java: A Case Study of Semarang-Yogyakarta-Surakarta Region. *Geoplanning: Journal of Geomatics and Planning*, *3*(1).

42. Shaikh, A. A., Glavee-Geo, R., Karjaluoto, H., & Hinson, R. E. (2023). Mobile money as a driver of digital financial inclusion. *Technological Forecasting and Social Change*, *186*, 122158.

43. Soeparyanto, T. S., Royani, W., Arsyad, L. O. M. N., & Statiswaty. (2023). Kinerja Ojek Online dan Konvensional di Kota Kendari. *JMTS: Jurnal Mitra Teknik Sipil*, 819–830.

44. Suatmadi, A. Y., Creutzig, F., & Otto, I. M. (2019). On-demand motorcycle taxis improve mobility, not sustainability. *Case Studies on Transport Policy*, *7*(2), 218–229.

45. Swastika, Y., Yusuf, M., Napu, F., & Idris, A. (2022). Analisis Perbandingan Pendapatan Driver Grabcar dan Go-Car Di Kota Kendari Tahun 2020. *Ecotechnopreneur: Journal Economics, Technology And Entrepreneur*, *1*(01), 59–68.

46. Westerman, G., McAfee, A., Ferraris, P., Bonnet, D., & Calméjane, C. (2011). *Digital Transformation: A Road-Map for Billion-Dollar Organizations*.