

PERCEIVED INCOME STABILITY AND FINANCIAL SECURITY AMONG GIG WORKERS IN INDONESIA: A SOCIOECONOMIC AND OCCUPATIONAL ANALYSIS

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Abstract. The gig economy of flexible, platform-mediated, and task-based work has been reshaping the labour markets of countries worldwide, including Indonesia. Gig workers usually operate without formal contracts or social protection and face unique challenges related to income volatility management and long-term financial planning. This study analyses how gig workers in Indonesia perceive income stability and financial security at the individual level on various socio-economic and occupational dimensions. Based on a cross-sectional survey of 1,196 respondents from Java Island, the study uses descriptive statistics, Spearman correlations, Mann-Whitney U tests, and Kruskal-Wallis analyses to identify behavioral and structural determinants of financial perceptions. A strong positive correlation is detected between perceived financial security and income stability; however, it varies remarkably in selected income brackets, savings behavior, work tenure, bonus frequency, and debt sources. Urban freelancers, especially those in Jakarta, report higher financial confidence compared to rural service-sector workers. The study will point out the role of financial literacy, platform incentives, and regional infrastructure in shaping economic resilience. Centering the lived experiences of gig workers themselves, this paper contributes to policy discussions on the regulation of digital labour and social protection in Indonesia's evolving gig economy.

Keywords: gig economy, income stability, financial security, platform labor, Indonesia, digital work, socioeconomic disparities.

JEL Classification: J46, J32, O17, J81.

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1. Introduction

The rise of the gig economy, digitally mediated, task-based work organized through online platforms in this paper, has transformed labor markets across the world, including Indonesia's. The gig economy is a form of work organization that is characterized by short-term work with high flexibility but lacking the stability of traditional employer-employee relationships (De Stefano, 2016). Gig work in this paper focuses on a wide range of occupations food delivery and online ride-hailing, through various digital platform providers. The expansion of digital platforms has radically lowered the barriers between consumers and workers, precipitating the emergence of this work arrangement (Wood et al., 2019).

The field of labor economics and digital labor studies has been increasingly fascinated with the gig economy, with the identification of its potential in reforming employment standards and social protection. The gig economy in Indonesia has gained strong momentum, particularly in urban regions such as those of the island of Java, where

Gojek, Grab, and Shopee platforms have turned into a part of daily economic transactions. Lesmana and Samudra (2025) place an estimate of between 0.3% and 1.7% of Indonesian workers relying on gig work as their primary source of income, indicating its growing prominence in the country's labor market. Although the numbers are small, the upward trend over each period is very significant. This increase is due to gig employment being a relatively low-capital, low-skill job opportunity. Therefore, the growth rate and specificities of the sector organization require increased attention. Most gig work is concentrated in cities with youthful demographics, and its growth aligns with national development goals. This is particularly relevant for the attainment of several SDGs, notably SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities). Digital platforms can enhance access to income opportunities, but they can also make income informal, unstable, and exclusionary with respect to social protections.

Despite the appeal, gig work is beset with a whole set of problems. Healy et al. (2017) refer to the absence of

employment security, career progression, and labor benefits that have become synonymous with traditional work arrangements. Workers are subject to earning insecurity, labor risks, and limited access to collective bargaining or social protection. Bajwa et al. (2018) also observe a lack of transparency and justice in platform governance, with Taylor et al. (2023) describing systemic vulnerabilities such as misclassification of employment status, psychosocial risks, and lack of training in occupational safety. These are compounded by algorithmic management practices that conceal income predictability and enhance economic uncertainty (Kadolkar et al., 2025). Though literature has documented the structural and institutional shortcomings of gig work, a fundamental lacuna persists in how gig workers themselves assess their economic security and financial stability over the long run. Previous research has either gravitated toward macro-level analysis or platform-based analysis, with individual-level attitudes being relatively under-examined. Moreover, while Oranburg and Palagashvili (2018) and Abdullah et al. (2024) have both examined the economic effects of gigging, they conclude that flexibility and extra income do not automatically translate into higher financial resilience in the face of variable demand and unregulated working hours.

The paper, therefore, fills this lacuna in the literature by investigating, from a micro level perspective, how gig workers perceive their income stability and financial security. Whereas most previous studies have focused on the governance of platforms, labor market dynamics, or the macroeconomic implications of this, few studies have sought to understand how gig workers themselves evaluate their financial well-being. Drawing on individual-level data across socio-economic and occupational dimensions, this research provides new insights into the everyday realities of digital labor in Indonesia. The outcomes are likely to inform policy debates regarding inclusive labor regulation, portable social protection, and platform accountability to contribute to improvement in the welfare and economic security of the gig labor force.

2. Literature review

Literature Review This study investigates gig workers' perceptions of income stability and long-term financial security two interrelated psychological constructs shaped by behavioral, structural, and contextual factors. In this case, perception is the way a person interprets their financial situation subjectively and influenced by their subjective assessment, emotional evaluation, and contextual cues. Psychological explanations, such as Theory of Planned Behavior (Ajzen, 1991) and Conservation of Resources Theory (Hobfoll, 1989), can help typify how gig workers develop financial attitudes based on a sense of control, resource availability, and coping mechanisms. These frameworks are increasingly relevant in digital labor studies, where economic uncertainty and algorithmic control shape workers' sense of stability and security (Caza et al., 2022; Cameron et al., 2021).

Gig Work Structure and Algorithmic Management The gig economy, defined as digitally mediated, task-based work organized through online platforms, has become a prominent feature of contemporary labor markets (De Stefano, 2016). In Indonesia, the introduction of Gojek, Grab, Shopee, and Tokopedia have introduced platform-mediated work in urban settings since 2015 (Royono et al., 2025; Prasetyo, 2024). Although advances in smartphones and internet access have brought down entry barriers, and the worker population has expanded to benefit from these platforms, the expansion has incorporated concerns regarding informalization, income instability, and exclusion from social protection (Wood et al., 2019). Central to these issues is algorithmic management in gig work. Kadolkar et al. (2025) provide a systematic review showing how algorithmic control affects autonomy, task allocation, and earnings predictability. Duggan et al. (2022) emphasize that while gig work offers boundary less career potential, algorithmic constraints often limit worker agency. According to Wood et al. (2019) "Algorithmic management can enhance precarity by obfuscating accounting for work arrangements and payment rates." Ai et al. (2023) in their recent field study of driver teams on a ride-hailing platform, found that team-based arrangements improved performance and alleviated isolation. Overall, Ai's research highlights that platform structure can shape outcomes in both economic and psychological capability. Alauddin et al. (2025) confirm that digital platforms shape not only work structure but also workers' perceptions of fairness and opportunity.

Financial Security and Income Stability. Formal contracts, insurance, and retirement plans not being standard for gig assignments leaves gig workers vulnerable (Ali et al., 2023). Research Pratomo et al. (2024) has documented the flexibility and additional income gig jobs bring, but has also documented the lack of protective gig jobs provide for one's finances. Workers are typically subject to income volatility, stagnant positions, and economic shocks. These findings are consistent with Conservation of Resources Theory, which explains that stress and resource loss, such as the income instability, diminishes subjective well-being (Hobfoll, 1989).

Alfarizi et al. (2025) found that hybrid work models combining platform labor with formal routines yield better productivity and satisfaction. Permana et al. (2022) emphasize that gig work often fails to meet the standards of "green jobs," which require fair wages and decent working conditions. Additionally, Ali et al. (2023) notes that unclear laws, vague policies, and lack of enforcement mechanisms weaken the financial and economic capacities of gig workers. Lastly, Behl et al. (2021) argue that playful design-oriented gamification strategies may support increased online engagement and financial motivation among gig workers. Their findings suggest that platform incentives and behavioral nudges can positively influence workers' perceptions of income stability. Burbano and Chiles (2022) add that misconduct and disengagement in gig work are mitigated when platforms foster relational accountability

and clear effort-reward mechanisms. Abdullah et al. (2024) highlight that in Malaysia, gig workers' financial well-being is closely tied to platform governance and access to social protection.

Demographics, Occupational Variation, and Psychological Risk. Indonesian gig workers have a demographic profile that is predominantly urban males with prior formal employment experience. Women face further barriers with caregiving responsibilities and safety issues. Gig employment is rarely a preferred occupation and instead plays a fall-back role in otherwise precarious labour markets. This challenges the prevailing narrative of gig work being a freely chosen option to traditional employment. Caza et al. (2022) created a conceptual framework to identify and measure the psychological challenges of gig work and noted that workers suffered from challenges to isolation, lack of feedback and blurred work-life boundaries. Psychosocial risks are common in high-stress roles such as ride-hailing or food delivery, with concerns over isolation, burnout and the absence of workplace relationships mentioned by Taylor et al. (2023). Although Cameron (2022) discusses the relational implications of gig work, including efficiency pressures and emotional well-being, Cameron and Rahman (2022) note how resistance and control are co-constructed in gig work. Cameron et al. (2021) noted during the COVID-19 pandemic gig workers expressed difficulty meeting the bar of an 'ideal worker' in part of the accrued health as well as stability risk. Bunjak et al. (2021) add that digital overload from constant app notifications and performance tracking contributes to burnout and reduces creativity.

Policy and Institutional Gaps. Despite growing participation, gig workers in Indonesia remain outside the scope of formal labor protections. Huda et al. (2024) and Bajwa et al. (2018) advocate for platform accountability, transparent algorithms, and portable social protection schemes. Lesmana and Samudra (2025) analysis indicates that with regard to legal protection of gig workers' rights, Indonesia is behind Malaysia, Singapore, and, to some extent, the other countries of Southeast Asia. The Ministry of Manpower has started discussions on policies, but the process is still incomplete. Zhou (2023) sees platform labor as falling in a no-man's-land of employment status: it is not fully dependent employment, nor is it independent work. Ali et al. (2023) propose hybrid legal models that provide a possible way to address the policy vacuum. Research Gaps and Contributions While macro-level studies provide a better account of the structural dynamics, there is still a lack of understanding in studies about the gig worker's own view of what financial stability and security entails (Sitorus & Kornitasari, 2024). This study seeks to bridge that gap by utilizing a micro-level framework focused on individual attitudes and experiences. The study analyzes how behavioral patterns, occupational roles, and regional variations contribute to the understanding of financial resilience within the gig economy as a whole. Ramadani et al. (2024) stresses the significance of worker-centered research in emerging economies, as the scope of digital labor is increasing rapidly. Ayyubi and Asrofi (2023) states

that empirically grounded insights should be a guiding principle for formulating inclusive policies on the labor and digital platforms. This study responds to that call. The aim is to provide evidence that can be used to guide scholarship and advocacy with the aim of more equitable digital labor systems.

3. Methods

A quantitative, cross-sectional survey design was used to assess gig workers' perceptions of income instability and long-term financial insecurity within Indonesia. Rather than longitudinal, a cross-sectional design was sought as a time-bound research design best aligned with recent financial attitudes and behaviors studies on platform-based labor within emerging economies (Al-Massalkhi & Ajonbadi, 2024). This research studied gig workers on Java Island, defined as individuals without formal employment contracts and earning income via digital platforms, including ride-hailing drivers, couriers, freelance creatives, tutors, and other project-based service providers. Using stratified sampling, 1,196 respondents to this survey were obtained. This covered six provinces (DKI Jakarta, Banten, West Java, Central Java, East Java, and Yogyakarta) to secure geographic representation. Sample size was calculated as per Krejcie and Morgan's (1970) recommendations, yielding a minimum of 384 respondents to a 95% confidence level and a 5% margin of error. As per gig economy research (e.g., Bajwa et al., 2018), structured questionnaires were used and pre-tested with 30 respondents to improve clarity. The rest were developed by the research team. It consisted of five thematic clusters:

1. Demographics and Work Profile: Profile considerations include age, gender, educational background, socioeconomic status, type of gig work, and length of involvement, daily working hours, and platform usage.
2. Income and Financial Behavior: Monthly income brackets, savings behavior, debt status, frequency of bonuses/incentives, and experiences of financial hardships.
3. Access to Financial Services and Protection: Ownership of a bank account, enrolment in Social Security Administrator for Employment (BPJS).
4. Financial Perception in Relation to Stability and Security: Income Stability was assessed with a 5-point Likert scale (1 = Very Unstable to 5 = Very Stable) to counter central tendency bias and lack of differentiation. (b). Long-Term Financial Security was assessed with a 5-point Likert scale (1 = Not Secure at All to 5 = Very Secure).
5. Policy Awareness and Aspirations: Attitudes toward government or platform-based protection, and interest in informal social security schemes. The full version of the survey instruments and details about the specific items and their corresponding response options can be found in the supplementary appendix to ensure replicability.

Quantitative data were analyzed using SPSS v26. Descriptive statistics were used to summarize demographic and financial indicators. Inferential analyses included Spearman's rank correlation to assess associations between perceptual variables, Mann-Whitney U tests to compare financial perceptions across binary groups, and Kruskal-Wallis tests to examine differences across categorical variables. Before analysis, assumptions of scale reliability and sampling adequacy were verified. All statistical tests were conducted at a 95% confidence level. This methodological framework draws from recent empirical studies of gig labor in Southeast Asia, for example, Alfalizi et al. (2025) and Ayyubi and Asrofi (2023), contributing to the small but growing body of research that places worker-level experiences at the forefront of digital labor economies.

4. Result

Participant Demographics

The study involved a total of 1,196 gig workers from Java Island (see Table 1). The age of the respondents varied from 17 to 73 years ($M = 29.4$, $SD = 7.41$), and the gender ratio was 53.5% females and 46.5% males. The participants' educational level was quite a mix, with 39% of them holding a bachelor's degree. The participants' socioeconomic status (SES) was gauged from their own point of view, as 42.7% ranked themselves as middle SES and 43.3% as upper SES.

Table 1. Sociodemographic profile of respondents

Socio-demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	556	46.5%
	Female	640	53.5%
Province	Banten	38	3.2%
	DI Yogyakarta	30	2.5%
	DKI Jakarta	230	19.2%
	West Java	380	31.8%
	Central Java	218	18.2%
	East Java	300	25.1%
Last Education Level	Diploma	102	8.5%
	Doctorate	4	0.3%
	Master's Degree	11	0.9%
	Elementary School	3	0.3%
	Senior High School	311	26.0%
	Vocational High School	272	22.7%
	Junior High School	26	2.2%
Socioeconomic Status (SES)	Bachelor's Degree	467	39.0%
	Lower	167	14.0%
	Middle	511	42.7%
	Upper	518	43.3%

Most respondents rely on gig work as their main source of income (60.1%), with freelancing being the most common type (61.1%), followed by online drivers and service providers. Many have worked in the gig sector for over a year, showing long-term involvement. Most work between 4–8 hours a day (58.7%), and over 90% receive incentives either occasionally or frequently. More than half use only one platform (52.7%), while others use two or more. Overall, the data in Table 2 shows that gig work plays a major role in their daily lives and income.

Table 2. Gig work characteristics of respondents

Gig Work Characteristic	Category	Frequency	Percentage (%)
Gig Work as Primary Income Source	No	477	39.9%
	Yes	719	60.1%
Type of Gig Work	Online Driver	223	18.6%
	Freelancer	731	61.1%
	Service Provider	183	15.3%
	Courier	59	4.9%
Duration in Gig Sector	< 6 months	235	19.6%
	6–12 months	304	25.4%
	1–2 years	321	26.8%
	> 2 years	336	28.1%
Average Working Hours per Day	< 4 hours	232	19.4%
	4–8 hours	702	58.7%
	> 8 hours	262	21.9%
Receiving Incentives/Bonuses from Platform	Never	86	7.2%
	Occasionally	682	57.0%
	Frequently	428	35.8%
Number of Platforms Used	1	630	52.7%
	2	337	28.2%
	3	156	13.0%
	4	72	6.0%
	5	1	0.1%

Financial indicators in Table 3 revealed that 75.3% of respondents saved regularly, while 50.9% had no active debt. However, 59.4% reported difficulty meeting basic needs in the past three months. Most had access to formal financial services, with 97% owning bank accounts and 72.3% enrolled in BPJS health assurance.

Table 3. Financial conditions and behaviors

Financial Conditions and Behavior	Frequency	Percentage
Average income per month		
< Rp 1 million	271	22.7%
1–2.5 million	389	32.5%
2.5–5 million	391	32.7%
> 5 million	145	12.1%
Do you have fixed savings every month?		
No, I don't have	295	24.7%

End of Table 3

Financial Conditions and Behavior	Frequency	Percentage
Yes, I have	901	75.3%
Have active debt?		
No, I don't have	609	50.9%
Yes, I have online lending	143	12.0%
Yes, I have debt from formal banking	444	37.1%
Have financial reserves for the next 1 month?		
No	271	22.7%
Yes	925	77.3%
Have you ever had difficulty meeting basic needs in the last 3 months?		
No	485	40.6%
Yes	711	59.4%
Have a bank account?		
No	36	3.0%
Yes	1160	97.0%
Using digital financial services?		
No	21	1.8%
Yes	1175	98.2%
Do you have insurance/BPJS?		
BPJS Health	865	72.3%
BPJS Employment	152	12.7%
BPJS Health	865	72.3%
Private	48	4.0%
No, I don't have	131	11.0%

Note: BPJS is social security administrator for employment.

Perceptions of Income Stability and Financial Security

Respondents rated their income stability at an average of 2.87 (SD = 0.902) on a 4-point scale, and long-term financial security at 3.59 (SD = 1.14) on a 5-point scale. These scores suggest a moderately positive perception of gig work's financial viability. Additionally, 94.1% believed gig workers need protection from government or platforms, and 89% expressed interest in informal social security programs (see Table 4).

Table 4. Perceptions of gig work

Perceptions of Gig Work	Frequency	Percentage
Do gig workers need protection from the government/platforms?		
Needed	1126	94.1%
Not needed	31	2.6%
Don't know	39	3.3%
Interested in participating in informal social security programs?		
No	53	4.4%
Don't know	79	6.6%
Yes	1064	89.0%

5. Correlation analysis

Statistical analysis showed a strong correlation between perceived income stability and long-term financial security ($r_s = 0.699, p < 0.001$). Those who view their earnings as steady are more inclined to believe they are secure financially. Table 5 presents the results of the Mann-Whitney U Test, which assessed the stability of income and long-term financial security perceptions for different demographic and financial characteristics. No significant differences were associated with the gender variable. With respect to perceptions of financial stability ($U = 169.285, p = 0.125$) and long-term financial well-being ($U = 173.179, p = 0.410$), this population sample indicates that gender is not an important variable in the perception of financial security. Primary Source of Income Differences regarding individuals' primary income source in relation to both financial well-being ($U = 147.697, p < .001$) and long-term economic well-being ($U = 152.611, p < .001$) were evident. This indicates that the income source, whether formal employment, entrepreneurship, or informal employment, substantially shapes an individual's financial attitudes which suggests the need for targeted financial education and policy adjustments.

Respondents indicating monthly savings reported considerably greater levels of perceived financial security ($U = 58.562, p < .001$) and long-term financial security ($U = 63.327, p < .001$). These results reflect the importance of regular savings as the most positive predictor of the construction of economic resilience and personal economic security. Meeting basic needs for three months was significantly related to income security ($U = 156.873, p = 0.005$) and long-term financial protection ($U = 156.564, p = 0.005$). This denotes how psychosocial financial security is associated with short-term fiscal preparedness. Ownership of financial cushions for one month was strongly associated with perceived stable income ($U = 69.177, p < .001$) and long-term financial security ($U = 68.806, p < .001$). These findings illustrate how even minimal financial buffers are important to perceived economic security.

Tables 5. Mann-Whitney U test

Group	Income Stability		Long-Term Financial Security	
	Statistic	p	Statistic	P
Gender	169.285	0.125	173.179	0.410
Main Source of Income	147.697	<.001	152.611	<.001
Has Monthly Savings	58.562	<.001	63.327	<.001
Has Difficulty Meeting 3 Months of Needs	156.873	0.005	156.564	0.005
Has 1 Month of Financial Reserves	69.177	<.001	68.806	<.001

Table 6 indicates limited gender variation in attitudes to money. Both men and women had the same level of income stability ($M = 2.90$ vs. 2.84) and long-term financial security ($M = 3.61$ vs. 3.58) with identical medians. However, the availability of a primary source of income did matter a matter that was significant those with income scored their financial stability and security as higher ($M = 2.95$ and 3.67) than those without income ($M = 2.75$ and 3.48). Financial behavior had a larger impact. Those who saved monthly had significantly higher ratings of income stability ($M = 3.10$) and financial security ($M = 3.87$) compared to non-savers ($M = 2.15$ and 2.74). Similarly, those who could meet basic needs and had money reserves showed more financial well-being. Interviewees with reserves, for example, had higher scores ($M = 3.04$ and 3.82) compared to those without money reserves ($M = 2.29$ and 2.83). These findings show that financial preparedness and saving behavior are at the core of shaping people's views of economic stability.

Table 6. Descriptive comparisons

Com- parison	Income Stability				Long-Term Financial Security		
	N	Mean	Median	SD	Mean	Median	SD
Gender							
Male	556	2.90	3.00	0.956	3.61	4.00	1.187
Female	640	2.84	3.00	0.852	3.58	4.00	1.102
Main Source of Income							
No	477	2.75	3.00	0.853	3.48	3.00	1.101
Yes	719	2.95	3.00	0.925	3.67	4.00	1.163
Has Monthly Savings							
No	295	2.15	2.00	0.868	2.74	3.00	1.159
Yes	901	3.10	3.00	0.780	3.87	4.00	0.987
Has Dif- ficulty Meeting Needs							
No	485	2.97	3.00	0.812	3.72	4.00	1.037
Yes	711	2.80	3.00	0.953	3.51	4.00	1.202
Has Financial Reserves							
No	271	2.29	2.00	0.889	2.83	3.00	1.186
Yes	925	3.04	3.00	0.833	3.82	4.00	1.028

The Kruskal-Wallis test (Table 7) revealed statistically significant differences in perceived income stability and long-term financial security across multiple categorical variables. Regional variation was evident, with income stability ($\chi^2 = 11.7$, $df = 5$, $p = 0.039$) and financial security ($\chi^2 = 17.4$, $df = 5$, $p = 0.004$) differing across provinces, suggesting that geographic context influences financial

perceptions. Socioeconomic status (SES) showed a strong association, where individuals in higher SES grades reported significantly greater income stability ($\chi^2 = 24.6$, $df = 2$, $p < .001$) and financial security ($\chi^2 = 10.5$, $df = 2$, $p = 0.005$). Similarly, the type of gig job ($\chi^2 = 11.3$, $df = 3$, $p = 0.010$) and sector of gig work ($\chi^2 = 92.1$, $df = 3$, $p < .001$) were both significantly linked to financial perceptions, indicating that occupational context plays a critical role in shaping economic confidence.

Work-related financial indicators showed the strongest associations. Average working hours were significantly related to income stability ($\chi^2 = 49.0$, $df = 2$, $p < .001$) and financial security ($\chi^2 = 29.4$, $df = 2$, $p < .001$), suggesting that time investment in gig work correlates with perceived financial well-being. Receipt of bonuses or incentives yielded the most pronounced effects, with income stability ($\chi^2 = 251$, $df = 2$, $p < .001$) and financial security ($\chi^2 = 169$, $df = 2$, $p < .001$) markedly higher among recipients. Likewise, average monthly income ($\chi^2 = 229$, $df = 3$, $p < .001$) and active debt status ($\chi^2 = 34.5$, $df = 2$, $p < .001$) were significantly associated with both financial indicators, reinforcing the central role of income sufficiency and debt burden in shaping individuals' financial outlook.

Tables 7. Kruskal-Wallis test

Category	Income Stability			Long-Term Financial Security		
	χ^2	df	p	χ^2	df	P
Province	11.7	5	0.039	17.4	5	0.004
SES Grade	24.6	2	<.001	10.5	2	0.005
Gig Job Type	11.3	3	0.010	11.4	3	0.010
Gig Sector	92.1	3	<.001	78.4	3	<.001
Average working hours	49.0	2	<.001	29.4	2	<.001
Bonus/Incentives received	251	2	<.001	169	2	<.001
Average monthly income	229	3	<.001	154	3	<.001
Active debt	34.5	2	<.001	30.3	2	<.001

The post hoc analysis employed the Dwass, Steel, Critchlow-Fligner (DSCF) pairwise comparison method, which is appropriate for non-parametric data and multiple group comparisons. Detailed results of the DSCF pairwise comparisons, along with descriptive interpretations of income stability and financial security perceptions for each categorical variable, are presented in Table 8.

6. Comparative analysis of binary variables

To discover the degree to which binary financial and occupation factors influence gig workers' attitudes toward income security and long-term financial protection, a Mann-Whitney U series of tests were employed. Main Source of Income Participants for whom gig work represented their main source of income reported much greater levels of income stability and self-reported long-term financial security compared to those for whom gig work was second-

Table 8. Post Hoc Test DSCF pairwise comparison

Category		Income Stability		Long-Term Financial Security	
		W	p	W	p
Province					
Banten	DI Yogyakarta	2.488	0.493	3.030	0.266
Banten	DKI Jakarta	2.864	0.328	3.909	0.063
Banten	West Java	1.630	0.859	2.428	0.521
Banten	Central Java	0.930	0.986	1.444	0.911
Banten	East Java	2.064	0.690	2.685	0.403
DI Yogyakarta	DKI Jakarta	-0.290	1.000	-0.456	1.000
DI Yogyakarta	West Java	-1.637	0.857	-1.614	0.864
DI Yogyakarta	Central Java	-2.687	0.402	-2.946	0.296
DI Yogyakarta	East Java	-1.257	0.949	-1.594	0.870
DKI Jakarta	West Java	-2.679	0.406	-2.845	0.336
DKI Jakarta	Central Java	-4.161	0.038	-5.132	0.004
DKI Jakarta	East Java	-1.815	0.794	-2.551	0.463
West Java	Central Java	-1.589	0.872	-2.283	0.589
West Java	East Java	0.949	0.985	0.288	1.000
Central Java	East Java	2.530	0.473	2.827	0.343
SES Grade					
Lower	Middle	4.33	0.006	3.877	0.017
Lower	Upper	6.70	<.001	4.517	0.004
Middle	Upper	3.86	0.017	0.908	0.797
Types of Gig Work					
Online Driver	Freelancer	-2.552	0.271	0.728	0.956
Online Driver	Service Provider	1.322	0.786	4.081	0.020
Online Driver	Courier	1.156	0.846	1.194	0.833
Freelancer	Service Provider	3.930	0.028	4.487	0.008
Freelancer	Courier	2.680	0.230	1.029	0.886
Service Provider	Courier	0.245	0.998	-1.469	0.727
Length of Work in the Gig Sector					
1–2 years	6–12 months	-2.693	0.226	-2.739	0.213
1–2 years	< 6 months	-11.648	<.001	-11.113	<.001
1–2 years	> 2 years	0.842	0.934	0.433	0.990
6–12 months	< 6 months	-9.393	<.001	-8.840	<.001
6–12 months	> 2 years	3.495	0.065	2.930	0.162
< 6 months	> 2 years	12.007	<.001	10.777	<.001
Average Working Hours					
4–8 hours	< 4 hours	-8.51	<.001	-6.60	<.001
4–8 hours	> 8 hours	2.84	0.110	2.39	0.210
< 4 hours	> 8 hours	9.13	<.001	6.98	<.001
Get bonuses/incentives					
Sometimes	Often	18.7	<.001	16.16	<.001
Sometimes	Never	-10.1	<.001	-6.47	<.001
Often	Never	-16.9	<.001	-12.89	<.001
Average Income per month (in Rupiah)					
1–2.5 million	2.5–5 million	7.76	<.001	4.85	0.003
1–2.5 million	< 1 million	-11.59	<.001	-9.19	<.001
1–2.5 million	> 5 million	11.72	<.001	10.25	<.001
2.5–5 million	< 1 million	-17.15	<.001	-13.24	<.001
2.5–5 million	> 5 million	6.73	<.001	7.44	<.001
< 1 million	> 5 million	16.78	<.001	14.88	<.001
Have Active Debt					
No	Yes (Online Loan)	-4.79	0.002	-6.34	<.001
No	Yes (Official)	5.02	0.001	2.49	0.182
Yes (Online loans)	Yes (Official)	8.13	<.001	7.79	<.001

ary or supplementary ($p < 0.001$). This would mean that gig workers who earn the majority of their income from gig earnings would cope and develop appropriate coping mechanisms or be more dedicated to platform work, thereby having a greater extent of financial stability and control.

There was a strong distinction created between respondents who indicated the monthly savings habit and those who didn't indicate such a habit. Based on Table 6 habitual savers also indicated greater income stability ($M = 3.10$) and future financial security ($M = 3.87$), with both contrasts having p -values < 0.001 . This supports the financial habit role in economic confidence. Not only does saving soak up surplus income, but it also offers psychological protection, enabling people to protect themselves against income uncertainty a top priority in gig economies.

Respondents who had not experienced financial hardship in the preceding three months reported significantly more favorable perceptions of both income stability and financial security ($p = 0.005$). This result reinforces the notion that recent economic distress can erode confidence in one's financial trajectory, even among those with access to digital labor markets. The psychological toll of financial instability has been well-documented in labor economics, where income shocks are linked to reduced optimism and increased risk aversion. Finally, those who reported having emergency financial reserves that is, having sufficient funds to cover basic needs for at least one month also had notably higher scores on both outcome measures ($p < 0.001$). This finding points to the buffering function of liquidity in the gig economy.

Table 9. Descriptive of income stability and financial security by category

Category	Financial Stability				Financial Security		
	N	Mean	Median	SD	Mean	Median	SD
Province							
Banten	38	2.63	3.00	1.025	3.21	3.00	1.255
DI Yogyakarta	30	3.07	3.00	0.691	3.83	4.00	1.085
DKI Jakarta	230	2.99	3.00	0.889	3.80	4.00	1.035
West Java	380	2.84	3.00	0.946	3.58	4.00	1.221
Central Java	218	2.78	3.00	0.831	3.44	3.00	1.077
East Java	300	2.89	3.00	0.897	3.60	4.00	1.130
SES Grade							
Lower	167	2.59	3	0.983	3.33	3	1.224
Middle	511	2.84	3	0.883	3.61	4	1.141
Upper	518	2.98	3.00	0.874	3.66	4.00	1.105
Duration of Work in Gig Sector							
< 6 months	235	2.37	2	0.889	3.02	3	1.136
6–12 months	304	2.89	3.00	0.859	3.64	4.00	1.043
1–2 years	321	3.02	3	0.836	3.78	4	1.071
> 2 years	336	3.04	3.00	0.888	3.78	4.00	1.170
Average Working Hours per Day							
< 4 hours	232	2.51	3.00	0.921	3.25	3.00	1.171
4–8 hours	702	2.92	3.00	0.874	3.65	4.00	1.096
> 8 hours	262	3.04	3.00	0.879	3.76	4.00	1.178
Received Incentives/Bonuses							
Never	86	1.94	2.00	0.831	2.71	3.00	1.309
Sometimes	682	2.68	3.00	0.853	3.37	3.00	1.093
Often	428	3.36	3.00	0.712	4.12	4.00	0.943
Average Monthly Income							
< Rp 1 million	271	2.23	2	0.928	2.95	3	1.190
1–2.5 million	389	2.82	3	0.834	3.55	4	1.096
2.5–5 million	391	3.14	3	0.749	3.82	4	0.998
> 5 million	145	3.47	4	0.646	4.30	5	0.906
Do you have active debt?							
No	609	2.82	3	0.930	3.60	4	1.146
Yes (Lending/Informal)	143	2.57	3	0.818	3.13	3	1.146
Yes (Official)	444	3.03	3.00	0.857	3.73	4.00	1.099

Comparative analysis of multigroup variables (Table 9) were to further explore how categorical factors influence gig workers' perceptions of income stability and long-term financial security, a series of Kruskal-Wallis H tests were conducted. This non-parametric method was chosen to accommodate the ordinal nature of the dependent variables and the non-normal distribution of responses across multiple groups. Where significant differences were found, Dwass-Steel-Critchlow-Fligner (DSCF) pairwise comparisons were applied to identify specific group-level contrasts. Provincial Variation There was large variation across provinces ($p < 0.001$), with the highest perceived income stability and financial security reported by DKI Jakarta respondents. Central Java and Yogyakarta employees registered significantly lower scores. These variations likely reflect regional differences in platform density, digital infrastructure, and earnings per gig. Urban places such as Jakarta experience more diversified gig work and greater demand and thus yield greater financial confidence. These results echo regional labor market segmentation in Southeast Asia's platform economy (Natalia & Putranto, 2023; Yasih, 2022).

Socio-Economic Status (SES) SES was the best predictor of finance perception, with more SES groups perceiving much greater income stability and long-term security ($p < 0.001$). Contrasts of DSCF revealed that respondents in the higher SES group performed reliably better than respondents in the lower SES group on both factors. This suggests that available economic capital is a safeguard against the uncertainty of gig work (Van Doorn, 2017; James, 2021). The nature of gig work performed significantly affected financial mindsets ($p < 0.001$). Freelancer's writers, designers, and teachers felt safer and more stable compared to ride-hailing drivers and couriers. These findings validate gig economy studies on task heterogeneity wherein increased-skilled tasks are associated with greater autonomy and earning opportunities. **Duration** Participants with more gig work tenure (≥ 2 years) reported significantly greater income stability and financial security perceptions ($p < 0.001$). This suggests experience builds up coping skills, client contacts, and knowledge of platforms to construct greater economic confidence (Kässi & Lehdonvirta, 2018). Tan et al. (2021) note that the lack of formal employment pathways makes tenure a proxy for professionalization in gig work.

Working hours were positively related to financial perceptions. Respondents working ≥ 4 hours per day reported much higher scores on both dimensions compared with those who worked fewer hours ($p < 0.001$). This finding supports the contention that time investment is tied to income predictability and platform salience (Bajwa et al., 2021). Regular bonuses was a significant predictor ($p < 0.001$), with employees receiving regular incentives perceiving a greater sense of income security and financial stability. This indicates the financial and motivational value of performance-based incentives in platform economies. Not only do incentives enhance base pay, but also create a sense of respect and equity, generating higher employee

satisfaction and turnover (De Stefano et al., 2021). Income level was also the strongest predictor of financial perception. Respondents receiving over IDR 5 million/month exhibited significantly higher stability and security relative to those who earned less than IDR 2 million ($p < 0.001$). This corroborates the salience of earnings in economic confidence construction and validates income as a proxy for financial resilience (Todoli-Signes, 2017). Debt status significantly influenced financial perceptions ($p < 0.001$). This may be because formal loans are formal, with established repayment schedules, financial literacy, and access to credit historic (Demirgüç-Kunt et al., 2022).

7. Discussion

The results of this study convey, in a nuanced way, Indonesian gig workers' perceptions of income stability and long-term financial security as an outcome of a complex interplay between behavioral practices, occupational characteristics, and platform governance. In fact, there is a very strong positive correlation between perceived income stability and financial security, which befits microeconomic theory that presupposes that income coherence enables the performance of future-oriented financial behaviors: saving, budgeting, and planning. This psychological dimension of financial mastery is a reverberation of how the literature in behavioral economics has long argued about the destabilizing nature of income volatility on economic decision-making and well-being (Felix et al., 2023; Glavin & Schieman, 2022). Consistent with prior literature, this study confirms that structured financial behaviors such as regular saving and maintaining emergency reserves are significantly associated with higher financial confidence (Sankararaman et al., 2024). These findings reinforce the role of financial literacy and proactive money management as buffers against the precariat of gig work. Curiously, respondents with formal debt obligations reported greater financial assurance than those with no debt or having debt from informal borrowing, supporting recent literature on financial inclusion that underlines the stabilizing influence of regulated credit mechanisms (Liu et al., 2020). Geographical inequalities in financial perceptions also emerged wherein urban gig workers, particularly those in Jakarta, represent higher levels of income stability and financial security than workers in Central Java and Yogyakarta. These perceptions mirror the findings by Veluchamy et al. (2021) that urban gig workers enjoy a more substantial ecosystem of platforms, better digital infrastructure, and a more diverse income stream. Findings which are segmented geographically reinforce broader disparities in labor conditions and gestures toward the need for geographic targeting in policy interventions that enable equitable access to platform-based employment. Occupational characteristics emerged as critical predictors of financial perceptions. Freelancers in skill-based tasks reported higher financial confidence compared to service gig workers, such as ride-hailing drivers and couriers. This supports dual labour market theory, which distinguishes

between primary and secondary segments of gig work on the dimensions of autonomy, skill intensity, and income predictability (Milkman et al., 2021; Myhill et al., 2021). The findings also resonate with Duggan et al. (2022), who argue that algorithmic HRM practices disproportionately affect low-skill gig workers by limiting control over work schedules and income flows, hence contributing to economic insecurity. The role of algorithmic management in shaping financial perceptions certainly cannot be overlooked (Duggan & Jooss, 2023). Permana et al. (2022) and Vadavi and Sharmiladevi (2024) show that such invisible algorithmic controls, in the form of dynamic pricing, task allocation, and performance scoring, often undermine workers' sense of control and predictability. Using survey responses, Liang et al. (2023) present the case that workers who received frequent platform incentives reported higher financial confidence, suggesting that transparency and consistency in reward mechanisms may ease some of the psychological load imposed by algorithmic control. Moreover, the psychological contract of gig workers with the platforms also seems to affect financial attitudes. According to Liu et al. (2020), fulfilment of the psychological expectations of fair treatment and recognition increases task performance and organizational identification. Longer tenure and higher daily work hours, in the current study, correlate with stronger perceptions of financial stability, showing that continued engagement and perceived legitimacy of platform work are indeed contributing factors to economic resilience.

These various insights notwithstanding, the need to recognize several limitations arises. Causal inference is constrained by cross-sectional design, and self-reported data are more biased, especially on sensitive areas such as personal income and the debt of one's household. Also, the survey's online mode may have excluded gig workers who are digitally marginalized, producing a sample biased against gig workers without literacy capabilities, leading to a sample of more urban and literate workers. These criticisms reflect questions about mental health consequences of platform dependency that Glavin and Schieman (2022) raised as a potential area of inquiry, called for more inclusive design. Above all, this study adds to the emerging literature on gig economy processes by foregrounding worker-level perceptions and linking perceptions to wider structural and behavioral forces. This finding supports the calls for inclusive labour regulation, transparent conditions of platform governance, and portable social protections (Oranburg & Palagashvili, 2018; Milkman et al., 2021). As Indonesia's gig economy continues to expand, evidence-based policies must address not only income generation but also psychological, geographic, and occupational dimensions of financial security.

8. Conclusions

This study offers an in-depth, evidence-based analysis of Indonesian gig workers' financial orientations, including

the ways they perceive income stability and long-term financial security. Using a large-scale cross-sectional dataset and robust statistical methods, our findings indicate that gig workers' confidence in their finances is influenced by constellations of behavioral habits, such as regular saving and building up emergency reserves; structural conditions, including level of income, type of debt, and availability of formal financial services; and contextual factors, which include one's geographic location, socioeconomic status, and type of gig work. The strong positive correlation between perceived income stability and financial security affirms that stable earnings will encourage economic resilience, consistent with microeconomic theory and literature on behavioral finance. Theoretically, this study contributes to a growing body of research on digital labor by affirming that gig work is not a monolithic experience, but rather is stratified by skill level, tenure, workload, and platform incentives, echoing dual labor market theory and recent scholarship on algorithmic management and task heterogeneity. The findings also support psychological contract theory in suggesting perceived fairness and predictability in platform work enhance workers' financial confidence. From a practical perspective, this study offers insights for policymakers, platform designers, and social protection agencies. It emphasizes the need for location-specific interventions; the inclusion of financial literacy programs; and portable social protection models that recognize the variability of gig workers' experiences. Limitations were also flagged. The cross-sectional design limits the potential for causal inference regarding financial trajectories and trends over time; the study relied on self-reported data, which introduces potential bias (especially regarding more sensitive items such as income and debt); and the online tool may not have reached digitally marginalized gig workers, over representing urban and most likely higher literacy gig workers. All of these limitations provide momentum to carefully generalize the findings to the entire gig economy. Future research should also consider longitudinal designs to understand changes in financial resilience over time; capture platform-level analytics regarding real-time earnings and task assignments; as well as look at trust, autonomy, and perceived fairness factors. Comparing studies across regions and countries will further solidify the role of institutional and legal frameworks in shaping gig workers' financial outcomes. Centering scholarship around lived experiences of workers on platforms allows for better contribution to the development of a digital economy that is inclusive, sustainable, and truly equitable in its labor systems. Overall, this research adds to the conversation about gig work and financial security in Indonesia and offers evidence for reforms to promote economic dignity and protection among nonstandard workers. It states that financial resilience in the gig economy is not merely a function of income, but rather, is a product of behavior discipline, access to structures, and contextual opportunities.

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