

Algorithmic Control and Platform App Design in Shaping Gig Workers' Perceived Effectiveness and Organizational Support: An Integration of TAM and Organizational Support Theory in the Platform Economy Context'

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Abstract

Digital labour platforms increasingly rely on algorithmic management and mobile applications to coordinate, control, and assess gig work. Although such technology may enhance the efficiency of gig work, it also changes gig workers' perceptions of effectiveness and organizational support. Based on the Technology Acceptance Model (TAM) and Organizational Support Theory (OST), this study explores the relationship between perceived algorithmic control (PAC) and perceived ease of use (PEU) of platform applications and platform app effectiveness (PAE) and perceived organizational support (POS) for gig workers. Using a quantitative, cross-sectional research approach, a survey was conducted among platform-based gig workers engaged in app-mediated work. Established multi-item scales were adapted to the gig economy setting and measured using a Likert-type scale. Data were analyzed using confirmatory factor analysis to examine the reliability and validity of measurement, followed by multivariate regression analysis using Pillai's Trace to explore the joint effects of PAC and PEU on PAE and POS. The results show that both PAC and PEU have significant system-level effects on gig workers' task-related and socio-psychological outcomes. Specifically, more advanced aspects of algorithmic control, including automated work instructions and algorithmic decision-making, significantly improve perceptions of platform app effectiveness, while also influencing workers' perceptions of organizational support. Similarly, more advanced aspects of PEU, including intuitive app navigation and autonomous app use, positively affect task-related effectiveness and perceptions of organizational care. The multivariate results clearly demonstrate that algorithmic control and usability features work as a unified organizational system rather than a discrete technological factor. This study makes a theoretical contribution to the growing literature on algorithmic

management by empirically integrating technological acceptance and organizational support theories in the gig economy context. The findings of this study have important practical implications for platform designers and policymakers, who should pay attention to the need to balance algorithmic control with user-friendly app design to enhance efficiency, trust, and worker well-being in digitally mediated labour systems.

Keywords: Gig economy, Algorithmic control, Technology Acceptance Model, Perceived organizational support, Platform app effectiveness, Digital labour platforms

1. Introduction

Digital labor platforms have transformed the modern world of work by introducing algorithmic systems and mobile apps as the central organizing, assessing, and controlling mechanisms of labor. In the gig economy, ride-sharing, food delivery, and task-based market platforms are increasingly using algorithmic management to allocate tasks, supervise workers' activities, and reward or punish workers in real time (Jarrahi & Sutherland, 2019; Alauddin et al., 2025). Unlike traditional organizations, where managerial power is exercised by human managers, platform organizations manage labor mainly through software interfaces and algorithmic systems. This means that supervisory, assessment, and coordination roles of management are now mediated by digital systems, thus changing the gig workers' experience of control, organizational support, and performance (Jarrahi & Sutherland, 2019). Recent studies have shown that algorithmic management is not only a technical system but also a new paradigm of organizational governance that influences workers' autonomy, motivation, and psychological experiences (Lata et al., 2022; Liu & Yin, 2024). While algorithmic management may standardize tasks, minimize ambiguity, and maximize efficiency, it may also increase feelings of surveillance and limit perceptions of autonomy, leading to ambivalent and even contradictory worker experiences (Lata et al., 2022). This ambivalence has attracted growing academic attention to examine how gig workers perceive, appropriate, and respond to algorithmic systems implemented in platform applications, especially with regard to job crafting, engagement, and well-being (Liu & Yin, 2024; Alauddin et al., 2025).

Contemporaneous with this tradition, the Technology Acceptance Model (TAM) literature highlights the crucial role of individuals' technology perceptions, especially perceived ease of use, in determining performance outcomes and system usage (Venkatesh & Davis, 1996; Sek et al., 2010). In the context of platform work, the mobile app is more than a communication tool; it is the central work environment where tasks are accessed, completed, and assessed. Ease of use, therefore, becomes a key factor in determining task performance and productivity, particularly in the context of time-constrained gig work. Although the contribution of TAM to the understanding of technology-enabled

performance is well-established, the present study identifies an important theoretical gap in the gig economy literature where the aforementioned ideas have never been combined with organizational behavior concepts.

Adding to the complexity of the platform work environment is the blurring of conventional employer-employee relationships. Gig workers, for instance, do not have continuous human interaction with their superiors or human resource personnel, which makes perceived organizational support (POS) even more dependent on technological and algorithmic signals incorporated into platform systems. These include automated feedback systems, system responsiveness, clarity of task instructions, and system reliability, which may serve as symbolic substitutes for organizational care and support (Kawai & Strange, 2014). There is consistent evidence from previous studies that POS improves work engagement, performance, and motivational outcomes in various work settings (Yongxing et al., 2017; Abdullahi et al., 2024). In the algorithmically controlled gig work environment, where direct human support is limited, POS perceptions are primarily driven by the manner in which platform technologies support and facilitate workers' work activities. There is also recent empirical support for the joint influence of algorithmic control and technologically mediated support on engagement and burnout outcomes, which emphasizes the socio-psychological importance of platform system design and governance (Lang et al., 2023).

Although there is a growing body of interest in algorithmic control, technology acceptance, and perceived organizational support (POS), the current literature is scattered. Few studies have attempted to integrate these theories to explain the joint effects of algorithmic control and app usability on perceptions of effectiveness and organizational support among gig workers. To fill this research gap, the current study proposes and tests an integrated framework that combines insights from algorithmic management theory, the Technology Acceptance Model (TAM), and Organizational Support Theory.

2. Literature Review and Hypotheses Development

2.1 Perceived Algorithmic Control and Platform App Effectiveness

Algorithmic control refers to the degree to which gig workers experience the platform's algorithms as controlling task allocation, task performance monitoring, and evaluation processes. Previous research has shown that algorithmic systems can enhance work efficiency by minimizing ambiguity, formalizing processes, and ensuring real-time feedback, thus enabling efficient task performance (Shi et al., 2024; Zhang et al., 2025). From the task performance perspective, well-defined algorithmic rules and automated coordination processes can help workers optimize their efforts, improve decision-making, and perform tasks more efficiently, especially in dynamic and uncertain gig work context. Over-monitoring and strict algorithmic regulation may limit autonomy, increase feelings of surveillance, and undermine self-motivation. Based on algorithmic management theory, researchers have argued that the effectiveness of algorithmic control depends critically on the degree to which workers perceive these systems as enabling or as restrictive (Sharma

et al., 2023; Zhang et al., 2025). Empirical research has also suggested that perceived algorithmic fairness, psychological empowerment, and emotional regulation play a crucial role in determining whether algorithmic control can improve engagement or lead to strain and disengagement among gig workers (Lin et al., 2025; Shi et al., 2024).

By integrating this approach with the Technology Acceptance Model (TAM), the concept of perceived algorithmic control can be formulated as a contextual antecedent that influences workers' assessments of the usefulness and effectiveness of the platform app. When workers perceive algorithmic systems as structured, predictable, and performance-enhancing, these systems can help reduce task ambiguity and improve the efficiency of coordination, causing workers to perceive the platform app as more effective in facilitating task completion and productivity. This approach aligns with TAM-based studies that have shown that perceptions of system characteristics can positively influence perceptions of usefulness and related performance outcomes in digital platforms (Mohd Amir et al., 2020). Additionally, empirical studies in platform-based settings have found that system characteristics such as reliability, predictability, and ease of use can work together to improve perceptions of usefulness and trust, which, in turn, influence users' performance-related assessments (Siagian et al., 2022). By applying this framework to gig economy settings, algorithmic control systems that offer clear guidance and decision-making rules may serve as enabling technological factors, which can further strengthen perceptions of platform app effectiveness beyond usability factors.

2.2 Perceived Algorithmic Control and Perceived Organizational Support

These theoretical assumptions are supported by empirical studies. Gig workers report that perceived algorithmic control has a positive effect on work engagement, even when burnout is considered, because of the great work resources and clarity provided by algorithmic systems that support the fulfillment of work demands (Lang et al., 2023). Algorithmic governance can positively impact engagement and affective outcomes if it is perceived as supportive rather than punitive, creating a sense of workplace well-being and facilitating job crafting through gameful interactions and perceived autonomy (Liu & Yin, 2024). In addition, perceived algorithmic control moderates the relationship between job autonomy and workplace well-being by diminishing work alienation and increasing positive emotions among gig workers, thus promoting a sound psychological state (Wan et al., 2024). Nevertheless, it is necessary to recognize the complex dual nature of algorithmic governance, which can provoke negative emotions such as distrust and anxiety when perceived as opaque or punitive, thus undermining the perception of support (Alacovska et al., 2024).

In conclusion, algorithmic control mechanisms in the gig economy could serve as symbolic expressions of organizational support when they enhance transparency, decrease uncertainty, and offer effective guidance to gig economy workers. However, the effectiveness of perceived support is contingent on the fairness and transparency of the algorithmic system and its ability to satisfy workers' psychological needs, requiring a balance between control and autonomy (Lang et al., 2023; Liu & Yin, 2024; Wan et al.,

2024; Alacovska et al., 2024). This view is consistent with the Organizational Support Theory, where the algorithmic control mechanism can serve as a symbolic expression of organizational support when it reduces uncertainty and offers effective guidance to gig economy workers.

2.3 Perceived Ease of Use and Platform App Effectiveness

Perceived ease of use a key concept in the Technology Acceptance Model (TAM), refers to the degree to which people believe that using the system requires little effort (Venkatesh & Davis, 1996). A great deal of empirical research has shown that ease of use positively affects task efficiency, cognitive load, and performance outcomes by reducing the effort required to use digital systems (Sek et al., 2010; Huang et al., 2019). In the gig economy, platform apps serve as the main interface for navigation, communication, and task accomplishment, thus effectively being the central work environment. A complex and difficult-to-use interface may increase the number of errors, hinder task accomplishment, and cause worker frustration, whereas simple and user-friendly interfaces can facilitate smooth task processes and rapid decision-making. Previous studies using the TAM approach in platform and crowdsourcing research have shown that perceived ease of use positively affects users' perceptions of system effectiveness and usefulness, thus influencing performance-related perceptions (Mohd Amir et al., 2020). Ease of use is therefore expected to play a crucial role in gig workers' perceptions of platform app effectiveness, particularly in time-critical and algorithmically coordinated work environments.

2.4 Perceived Ease of Use and Perceived Organizational Support

Perceived Ease of Use (PEOU) and Perceived Organizational Support (POS) are key constructs that influence gig workers' engagement and satisfaction with digital labor platforms. PEOU refers to the degree to which gig workers believe that the use of the digital labor platform is effortless, including factors such as user-friendly design, clear task instructions, efficient onboarding processes, smooth payment system integration, and mobile-friendliness (Amin et al., 2014). Previous studies on technology acceptance have consistently shown that higher PEOU leads to easier and more effective system use and task accomplishment, thereby reducing the cognitive and operational difficulties associated with digital work environments. POS refers to the degree to which gig workers believe that the digital labor platform values and supports their well-being. Despite the seemingly autonomous nature of gig work, POS is a strong predictor of workers' job satisfaction, motivation, commitment, and loyalty (Ekowati & Andini, 2008; Sartori et al., 2023). In digital labor platform work environments, POS is realized through factors such as timely and transparent payment, effective grievance-redressal mechanisms, recognition of workers' efforts, provision of developmental resources, and effective communication practices. Cross-cultural findings have also shown that POS has strong and consistent effects on employee attitudes and behaviors in various institutional and national settings, emphasizing its applicability in non-traditional organizational contexts (Rockstuhl et al., 2020). The combination of PEOU and POS determines the overall digital

labor platform experience of gig workers. While PEOU is primarily concerned with the efficiency and ease of task accomplishment, POS is associated with emotional attachment and psychological commitment to the digital labor platform. Digital labor platforms that are able to simultaneously improve both PEOU and POS are therefore more likely to encourage higher levels of worker retention, performance, and positive platform advocacy.

3. Methodology

This research adopts a quantitative, cross-sectional approach to examine the empirical relationship between perceived algorithmic control and perceived ease of use and the effectiveness of platform app use and perceived organizational support among gig workers. The survey approach was adopted, as it is consistent with testing theory and validating latent constructs in technology-mediated work environments (Hair et al., 2019). The survey targeted gig workers who use digital platforms for app-mediated activities such as delivery, transportation, and task work. The survey targeted gig workers who had actual experience with a digital platform for labor.

Purposive sampling was used due to the lack of a comprehensive sampling frame for gig workers and the exploratory nature of algorithmic management studies. Data collection was conducted using an online questionnaire administered through digital channels commonly used by gig workers. Participation was voluntary, and respondents were assured of anonymity and confidentiality to reduce social desirability bias. All constructs were measured using multi-item scales adapted from existing literature and made relevant to the gig economy. Items were reviewed for content validity and clarity to ensure relevance to platform work.

First, descriptive statistics were employed to describe the demographic characteristics of the respondents (Mohan & Olivier, 2022). Second, Confirmatory Factor Analysis (CFA) was used to assess the reliability and validity of the measurement model (Carter, 2016). Composite reliability (CR), average variance extracted (AVE), maximum shared variance (MSV), and average shared variance (ASV) were calculated to determine internal consistency, convergent validity, and discriminant validity (Wan, 2016). Third, multivariate regression analysis using Pillai's Trace was used to investigate the joint impact of perceived algorithmic control and perceived ease of use on platform app effectiveness and perceived organizational support. A multivariate analysis was used to investigate the system-level impact of algorithmic and technological variables, which is more suited to digitally managed work contexts where multiple interrelated outcomes exist. Finally, between-subjects effects were analyzed to determine the specific dimensions of algorithmic control and ease of use that had a significant impact on each dependent variable (Wan, 2016).

The integration of CFA with multivariate regression analysis allows for a rigorous evaluation of measurement quality and structural relationships. Because of the embedded and interdependent relationship between algorithmic control and platform usability, multivariate analysis allows for a more nuanced understanding of gig workers' technology-mediated experiences than would be possible with univariate analysis (Griesbach et al., 2019).

The ethical principles in conducting survey research were strictly followed. The respondents were informed of the purpose of the study, assured of their voluntary participation, and given the freedom to withdraw at any time. No personal identifiers were gathered, and the data were only for research purposes.

4. Results and Discussions

Table 1 presents a summary of the demographic information of the respondents. The sample is dominated by workers in the early stages of platform use, with 40% of the respondents indicating less than six months of platform experience, and another 25.7% indicating six to twelve months of experience. This is consistent with the high churn rates and short cycles of employment that have been widely observed in platform labor markets (Alauddin et al., 2025).

TABLE 1. Demographic profile of respondents

Variable	Sub cohorts	Count	Percentage
Experience	Less than 6 months	14	40.0
	6-12 months	9	25.7
	1-3years	6	17.1
	More than 3 years	6	17.1
Gender	Male	23	65.7
	Female	11	31.4
	Prefer not to say	1	2.9

Theoretically, the role of early-tenure workers is particularly important, as feelings of algorithmic control, perceived ease of use, and perceived organizational support are likely to be accentuated in the early stages of engagement with the platform. At this point, workers are heavily dependent on app-based cues such as task allocation logic, performance support, and app transparency to infer organizational intentions and support (Wiener et al., 2021). Previous studies also indicate that early experiences with algorithmic systems are crucial in influencing workers' perceptions of control, compliance, and resistance in gig work systems (Cameron & Rahman, 2021). The gender split reveals that the majority of the respondents are male (65.7%), which is in line with the existing empirical literature on ride-hailing and delivery platforms (Marquis et al., 2018). This is because gig work, which involves physically demanding and flexible work, is predominantly the domain of male workers, especially in developing and emerging countries (Alauddin et al., 2025).

The results of the reliability and validity assessment of the measurement model are reported in **Table 2**. The Composite Reliability (CR) values for all constructs, namely Platform App Effectiveness (PAE), Perceived Organizational Support (POS), Perceived Algorithmic Control (PAC), and Perceived Ease of Use (PEU), are above the recommended level of 0.70, ensuring adequate internal consistency (Hair et al., 2019). The Average Variance Extracted (AVE) values exceed the 0.50 level for all constructs, thus ensuring

convergent validity. Finally, discriminant validity is also supported by the fact that the Maximum Shared Variance (MSV) and Average Shared Variance (ASV) values for all constructs are less than their respective AVE values, and the square roots of AVE are greater than the correlations among constructs, as recommended in the literature for the validation of covariance-based structural equation models (Gaskin et al., 2025). Taken together, these results suggest that the constructs are distinct and measure unique aspects of the platform-mediated work experience. The results also suggest that the measurement model is robust (**Figure 1**), consistent with recent studies on algorithmic management and digital labor platforms, which have emphasized the need for rigorous construct validation when investigating the technology-work design interface and algorithmically embedded organizational systems (Bellesia et al., 2024). Thus, a robust measurement model offers a firm foundation for subsequent structural model analysis and hypothesis testing.

TABLE 2. Reliability and Validity Analysis

Constructs	CR	AVE	MSV	ASV	PAE	POS	PAC	PEU
PAE	0.768	0.525	0.334	0.165	0.724			
POS	0.855	0.550	0.288	0.184	0.336	0.741		
PAC	0.802	0.516	0.305	0.168	0.221	0.389	0.718	
PEU	0.807	0.511	0.334	0.309	0.578	0.537	0.552	0.715

FIGURE 1 Confirmatory Factor Analysis

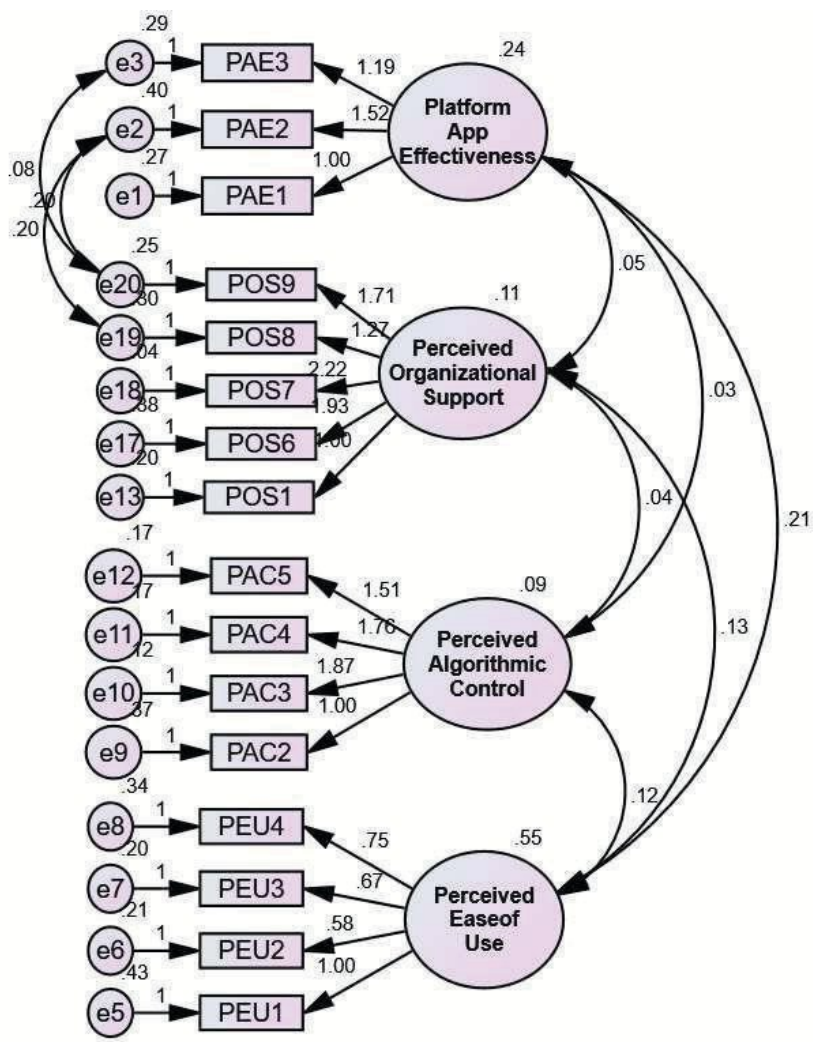


Table 3 presents the standardized factor loadings for all measurement indicators. The overall loadings for most indicators are strong and exceed the recommended threshold of 0.60, thus confirming the reliability of the indicators (Hair et al., 2019). For the perceived algorithmic control construct, the loadings for performance monitoring (PAC3) and algorithmic decision-making and task allocation (PAC4) are particularly high. This suggests that the mechanisms of continuous surveillance and automated allocation are core features of gig workers' perceptions of algorithmic governance, as expected from previous studies that identified monitoring intensity and data-driven decision rules as core characteristics of algorithmic management systems (Lang et al., 2023; Peng et al., 2024). For perceived ease of use, all loadings are acceptable and suggest that ease of navigation, user-friendly interface design, and low learning requirements are important factors in shaping workers' perceptions of platform application use. This finding is consistent with recent evidence that suggests user-friendly system design can reduce cognitive overload

and promote adaptive work behaviors in algorithmically managed settings (Liu & Yin, 2024). Similarly, the loadings for platform app effectiveness and perceived organizational support are strong and suggest that productivity enhancement, emotional bonding, enthusiasm, and responsiveness are important appraisal dimensions for gig workers. Taken together, these findings confirm the hypothesis that, in the absence of human oversight, platform functionality, algorithmic feedback, and data-driven performance cues serve as the primary appraisal anchors through which gig workers make sense of organizational intentions and support (Nanda et al., 2025).

TABLE 3. Factor Loadings

Construct/ Sub components	Description	Estimates
Perceived Algorithmic Control (PAC)		
PAC2	The rating system influences my access to better tasks.	0.438
PAC3	I feel the app closely monitors my performance.	0.846
PAC4	Algorithmic decisions (task allocation, penalties, and incentives) impact my daily work experience.	0.784
PAC5	Instructions or guidelines from the app feel strict and automated.	0.735
Perceived Ease of Use (PEU)		
PEU1	The platform app is easy to use.	0.749
PEU2	Learning to operate the app was simple for me.	0.679
PEU3	Navigating through the app features is straightforward.	0.740
PEU4	I can use the app without needing additional instructions.	0.689
Platform App Effectiveness (PAE)		
PAE1	Using the platform app increases my work productivity.	0.680
PAE2	The app helps me complete tasks more efficiently.	0.760
PAE3	The app improves my overall performance as a gig worker.	0.731
Perceived Organizational Support (POS)		
POS1	The platform cares about my well-being.	0.600
POS6	I feel emotionally connected to the platform.	0.720
POS7	I am enthusiastic about completing the tasks assigned.	0.969
POS8	I am willing to put in extra effort to perform well.	0.611
POS9	Working on the platform makes me feel energized and focused.	0.747

The multivariate regression analysis, as shown in **Tables 4 and 5**, used Pillai's Trace to examine the combined influence of perceived algorithmic control (PAC) and perceived ease of use (PEU) on platform app effectiveness (PAE) and perceived organizational support (POS). Pillai's Trace was chosen due to its ability to handle non-normality and equality of covariance matrices, making it suitable for platform-based survey research (Hussian, 2024). The findings show that a particular PAC dimension (PAC5) has a statistically significant multivariate influence on the set of dependent variables (Pillai's Trace = .556, $F(8, 19) = 2.972$, $p = .024$, partial $\eta^2 = .556$). Likewise, PEU dimensions

PEU3 and PEU4 show significant multivariate influence, with PEU4 having the largest system-level impact (Pillai's Trace = .671, $F(8, 19) = 4.842$, $p = .002$, partial $\eta^2 = .671$). Subsequent tests of between-subjects effects show that PAC5 has a significant impact on platform app effectiveness, specifically the task efficiency aspect (PAE2). Moreover, PEU4 has significant predictive power on productivity and performance aspects of platform app effectiveness. These results support previous studies that advanced algorithmic guidance and user-friendly system design improve user acceptance and task performance by overcoming cognitive friction and promoting goal-directed behavior (Soomro & Habeeb, 2024). Taken together, these results demonstrate that algorithmic control and ease of use have individual and combined influences on both functional and socio-psychological aspects of platform-mediated work.

TABLE 4. Multivariate Effects of Independent Variables on Dependent Variables

Effect	Multivariate Test	Value	F	Hypothesis df	Error df	p-value	Partial η^2
PAC2	Pillai's Trace	.257	0.823	8	19	.593	.257
PAC3	Pillai's Trace	.429	1.783	8	19	.143	.429
PAC4	Pillai's Trace	.478	2.176	8	19	.078	.478
PAC5	Pillai's Trace	.556	2.972	8	19	.024	.556
PEU1	Pillai's Trace	.442	1.883	8	19	.123	.442
PEU2	Pillai's Trace	.237	0.739	8	19	.657	.237
PEU3	Pillai's Trace	.547	2.868	8	19	.028	.547
PEU4	Pillai's Trace	.671	4.842	8	19	.002	.671

TABLE 5. Tests of Between-Subjects Effects

Predictor	Dependent Variable	F	p-value	Partial η^2
PAC4	PAE2	6.456	.017	.199
PAC4	PAE3	6.242	.019	.194
PAC5	PAE2	18.331	.000	.413
PEU1	POS1	5.362	.029	.171
PEU4	PAE2	20.152	.000	.437
PEU4	PAE3	7.362	.012	.221

5. Conclusion

This research contributes to the literature on digitally mediated gig work by empirically confirming the system-level effects of perceived algorithmic control (PAC) and perceived ease of use (PEU) on gig workers' functional and socio-psychological outcomes. Moving away from conventional univariate tests, the results show that algorithmic management and usability of the platform are integrated organizational mechanisms that together impact platform app effectiveness and perceived organizational support.

The findings support current theoretical approaches that consider algorithms not only as coordination devices but as managerial actors embedded in work experiences,

expectations, and perceptions of support. The finding that PAC has a significant effect highlights the dual nature of algorithmic control as an efficiency-enhancing system and a symbolic representation of managerial presence. Similarly, the multivariate findings of PEU indicate that user-friendly design not only enhances task efficiency but also affects workers' perceptions of organizational care and facilitation. Through the integration of findings from algorithmic management theory, the Technology Acceptance Model, and Organizational Support Theory, this research provides a more comprehensive explanation for the gig worker evaluation of the work environment created by platforms. In general, the results of this research indicate that gig work environments must be aligned with control mechanisms and usability.

6. Limitations

This research has a number of limitations that need to be acknowledged. Firstly, the cross-sectional nature of the research limits causal analysis, as the relationships between algorithmic control, perceived ease of use, platform application effectiveness, and perceived organizational support were measured at a single point in time. Secondly, the use of self-reported measures may be subject to common method variance, as well as being based on subjective perceptions rather than objective algorithmic processes and outcomes. Thirdly, the research sample is largely drawn from early-tenure gig workers, which, while theoretically relevant, may not generalize well to more experienced gig workers who may have different perceptions of algorithmic systems. Finally, the research focuses on a set of dimensions of algorithmic control and technology use, which may not be the most important platform features, such as algorithmic transparency, fairness, and data governance.

7. Social and Managerial Implications

The findings have important implications for both social contexts and platform regulation in the domain of digitally mediated gig work. The system-level implications of perceived algorithmic control and perceived ease of use suggest that platform technologies function not only as productivity aids but also as social governance systems that influence workers' perceptions of fairness, support, and inclusion. From a social perspective, a lack of transparency or too much rigidity in algorithmic control could potentially undermine work quality and perceptions of organizational care, thus perpetuating concerns about power imbalance and worker vulnerability in gig work systems. Thus, improving algorithmic transparency and usability could help create more sustainable and supportive forms of platform work. From a management point of view, the results highlight the importance of aligning algorithmic control with human-focused platform design. Platform managers should consider control systems and usability as mutually contingent factors that shape both efficiency and relational outcomes. Spending on explainable algorithms, user-friendly

interfaces, and supportive systems can enhance platform efficiency while demonstrating organizational concern, helping build worker trust and loyalty to the platform.

8. Directions for Future Research

Future studies should use longitudinal designs or multi-wave designs to explore how gig workers' perceptions change over time as platform algorithms and working structures evolve. The combination of objective platform data with perceptual data can help improve causal inference and reduce method bias. Future studies can also explore the boundary conditions and mechanisms, such as algorithmic transparency, fairness, digital literacy, and resistance, to better understand when algorithmic control is perceived as enabling versus constraining. Finally, comparative studies across different platform types, countries, and regulatory environments can improve the external validity of algorithmic management studies.

Conflict of Interest Statement

The author(s) declare that there is no conflict of interest regarding the publication of this article, “**Algorithmic Control and Platform App Design in Shaping Gig Workers' Perceived Effectiveness and Organizational Support: An Integration of TAM and Organizational Support Theory in the Platform Economy Context**”. The research has been conducted independently, without any financial or personal relationships that could have influenced the interpretations or conclusions presented in this study.

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