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Algorithmic control and gig workers' facades of conformity: A work stress perspective

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I examined the relationship between algorithmic control and gig workers' facades of conformity by investigating the underlying mechanism. Drawing on the challenge–hindrance stress model, I explored the mediating role of challenge stress and hindrance stress in this relationship. Then, by using data collected from an online food delivery platform in China, I demonstrated that hindrance stress positively mediated the relationship between algorithmic control and facades of conformity, but the mediating effect of challenge stress was not significant. This study contributes to the emerging research field of algorithmic control by not only empirically examining its effect on gig workers' psychological and behavioral outcomes, but also exploring the underlying mechanisms between algorithmic control and gig workers' facades of conformity. It offers a reference point and guidance for managers of gig economy enterprises.

Keywords
algorithmic control, facades of conformity, challenge stress, hindrance stress, gig workers

Article Highlights

- This study has enriched understanding of the relationship between algorithmic control and gig workers' facades of conformity by investigating its underlying mechanism.
- The correlation coefficient matrix and multilevel linear modeling results showed that algorithmic control had positive impacts on both challenge stress and hindrance stress.
- Hindrance stress acted as a mediator in the relationship between algorithmic control and facades of conformity.

Over the past decade, the rapid growth of the gig economy has made significant contributions to both domestic and global labor markets (Vallas & Schor, 2020). This emerging form of contingent labor has attracted numerous gig workers who prefer flexible employment (Kuhn & Maleki, 2017). To effectively manage these gig workers, who are dispersed geographically and in large numbers, platform companies have implemented algorithms that utilize various computational formulas (Duggan et al., 2020; Vallas & Schor, 2020). These algorithms employ statistical models and decision rules to direct gig workers without human intervention (Cheng & Hackett, 2021; Kellogg et al., 2020). While algorithmic control can impact gig workers' behavior, its effects can be both positive and negative (Cram et al., 2022; Möhlmann et al., 2021). On the one hand, algorithmic control is considered objectively and mathematically correct, providing customized feedback to help workers improve performance (Crowston & Bolici, 2019). On the other hand, continuous algorithmic monitoring of gig workers and limited flexibility to deviate from instructions have been perceived as a threat to gig workers (Kellogg et al., 2020; Lee, 2018; Möhlmann et al., 2021; Tomprou & Lee, 2022).

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Given the importance of the gig economy and the potential impact of algorithmic control, it is essential to explore and understand its outcomes.

The adoption of facades of conformity is a common phenomenon among gig workers. *Facades of conformity* refer to situations where individuals outwardly express support for their organization's values while suppressing their own (Hewlin et al., 2016). Previous research indicates that these facades are more prevalent among individuals who perceive their work environment as nonparticipative or who belong to a minority group. It is also reasonable to assume that gig workers, who often work independently and are directed by algorithms, may be susceptible to such facades. While scholars have started examining gig worker's attitudes and behaviors, such as work identity and status inconsistency (Petriglieri et al., 2018), there has been limited attention given to facades of conformity among gig workers. These facades can deplete physical and psychological resources, leading to emotional exhaustion (Chou et al., 2020), low job satisfaction, and a desire to leave the organization (Hewlin, 2009). Therefore, I aimed to investigate the relationship between algorithmic control and gig workers' facades of conformity, as well as to understand the underlying mechanisms.

Drawing on the challenge–hindrance stress model, I examined why gig workers exhibit facades of conformity under algorithmic control. *Challenge stress*, which creates opportunities and a sense of achievement, and *hindrance stress*, which involves demands that hinder one's performance and personal goals, are two distinct types of stress that impact an individual's attitudinal and behavioral outcomes (Cavanaugh et al., 2000). Shi et al. (2022) have additionally demonstrated that daily challenge stress has a positive influence on work engagement, whereas daily hindrance stress has no effect on work engagement. Hence, I posit that the indirect impact of algorithmic control on facades of conformity may differ depending on whether gig workers perceive algorithmic control as challenge stress or hindrance stress. With this in mind, I discuss the mediating effects of challenge stress and hindrance stress on the relationship between algorithmic control and gig workers facades of conformity, based on the challenge-hindrance stress model.

Theory and Hypotheses

Algorithmic Control

Algorithmic control is "an organization's attempt to influence worker behavior by using digital algorithms to enact the control (e.g., to identify a worker behavior that needs to change) and then delivering the control to the work by a technology interface (e.g., smartphone app)" (Cram et al., 2022, p. 429). Different from organizational control, algorithmic control is based on a computational formula (Duggan et al., 2020; Vallas & Schor, 2020), and it typically relies on ubiquitous and embedded technologies (i.e., mobile apps, smartphones, sensors; Cram et al., 2022). Embedded within digital platforms, algorithms are used to manage gig workers through task assignment, performance evaluation, and compensation. Kellogg et al. (2020) proposed that employers employ algorithms to exert control over workers through six main mechanisms: providing specific recommendations for gig workers' actions, imposing restrictions on gig workers' behaviors, collecting and analyzing data in a detailed manner, utilizing online rating and ranking systems, automatically replacing or removing underperforming workers, and incentivizing behaviors that align with predetermined correct behaviors.

Algorithmic Control and Facades of Conformity

Hewlin et al. (2016) stated that facades of conformity are "false representations created by employees to enable them to appear as if they embrace organizational values" (p. 541). When organizational values conflict with individuals' values, employees will exhibit conscious behaviors to pretend to support organizations' values and exhibit false behaviors that organizations needed. Recently, related studies investigated the causes of facades of conformity from the work context and individuals' psychology. For example, leader integrity (Hewlin et al., 2015), job insecurity (Hewlin et al., 2016), job strain and workplace bullying (Liang, 2021) have been determined to relate to employees' facades of conformity.

Gig workers who work under algorithmic control may use a facade of agreement (conformity) to obey the rules and demands of the platform. Vallas and Schor (2020) describe the situation where algorithms now fully manage workers and empower firms to an even greater extent as a digital cage. Constant surveillance is used to monitor workers' behaviors, and algorithmic replacement and reward systems are also established for discipline (Kellogg et al., 2020; Rosenblat, 2018). When gig workers do not comply with directives or their rating drops below a certain level, they are banned or punished (Rosenblat, 2018). Additionally, the interactive and dynamic reward depends on the consistency of their behaviors and the predefined correct behaviors (Goods et al., 2019; Rani & Furrer, 2020; Wood et al., 2019). Hence, gig workers must obey the predefined demands even if they do not agree because they need to conform to algorithmic control to gain rewards and avoid punishment.

However, some studies have proposed that gig workers thrive under algorithmic control (Ashford et al., 2018). Although the structural conditions of algorithmic control decrease gig workers' organizationally provided resources, gig workers can attain and maintain their personal resources through career-related behaviors (i.e., resilience and proactivity) and relational behaviors (Ashford et al., 2018). These resources (cognitive capability and emotional capability) enable gig workers to resolve problems proactively and increase their ability to thrive. In addition, many researchers have found that algorithmic control is perceived as fair (Hughes et al., 2019; Jabagi et al., 2020; Shin & Park, 2019; Wong, 2020). With the absence (or minimization) of bias and discrimination, and the accuracy and appropriateness of decisions, algorithms are considered credible and will increases gig workers' trust (Shin & Park, 2019). Given their trust in algorithms, gig workers may commit to the platform company and strive for high performance. I believe that in this case they will not display facades of conformity as that is considered a negative behavior.

As such, there may be an underlying mechanism leading to different effects of algorithmic control on gig workers' facades of conformity. In this study I simultaneously consider a positive and a negative path between algorithmic control and facades of conformity based on the model of challenge and hindrance stress to reveal the influential process and deepen understanding of algorithmic control.

Algorithmic Control and Gig Workers' Feelings of Work Stress

Cavanaugh et al. (2000) proposed that job demands can be divided into challenge stress and hindrance stress. When individuals feel work demands as challenge stress, the demands will exert potential positive influences on personal gain, growth, development, and well-being. In contrast, when individuals feel work demands as hindrance stress, the demands will result in personal loss, constraints, or harm (LePine et al., 2016), and the individuals will be demotivated to achieve their goals and experience low job satisfaction (Shi et al., 2022). In other words, only when the demands are viewed as challenge stress will individuals respond positively and invest more time and energy in their work. Through algorithms, job demands are transmitted to gig workers. On the one hand, algorithmic control is positively related to challenge stress. First, algorithms are considered fair and impartial (Lee, 2018; Shin & Park, 2019; Wong, 2020). If gig workers obey the demands and complete the work assigned to them, they can gain rewards and be promoted (Wong, 2020). Second, although algorithmic control provides strict criteria (such as completing tasks in a fixed time and banning drunken driving) to regulate gig workers' behaviors, these demands can encourage gig workers to improve their work efficiency and ensure their safety (Kellogg et al., 2020). Third, algorithmic control often provides gig workers with timely feedback to help them resolve problems at work and remind them to improve work quality (Parent-Rocheleau & Parker, 2022; Wallace et al., 2009). In addition, a series of competitive work games have been designed in algorithms to encourage workers to challenge themselves and earn more (Cram et al., 2022). These algorithmic demands can increase gig workers' income, improve their work efficiency, and promote their challenge appraisal. Accordingly, I proposed the following hypothesis:
Hypothesis 1: Algorithmic control will be positively related to challenge stress.

On the other hand, algorithmic control can elicit gig workers' feelings of hindrance stress. First, continuous surveillance has been blamed for invading gig workers' privacy (Ayyagari et al., 2011). For example, Uber tracks drivers' activities closely, including where they go and what route they take (Möhlmann et al., 2021). In addition, drivers' age, gender, education level, and criminal convictions are monitored via algorithms (Sessions et al., 2021). These demands inhibit gig workers from changing their work habits or working outside the rules. Second, gig workers often work independently, which increases their sense of loneliness and tension during work (Wood et al., 2019). They attempt to

communicate with one another to obtain a sense of belonging and organizational identification (Möhlmann et al., 2021; Rosenblat, 2018). Third, to keep pace with technological changes, algorithms add new functions and update the operating system irregularly. The continuous change may provide more rigorous demands and require that gig workers learn new skills and knowledge constantly, which may increase their pressures and strains (Curchod et al., 2020). Based on these arguments, I proposed the following hypothesis:
Hypothesis 2: Algorithmic control will be positively related to hindrance stress.

Work Stress and Facades of Conformity

As mentioned, challenge stress and hindrance stress are two categories of stress that have differing effects on individuals: Challenge stress is considered motivating, inspiring, and challenging, and hindrance stress is demotivating (Cavanaugh et al., 2000). When algorithmic control is perceived as a form of challenge stress, the demands placed on gig workers are viewed as meaningful, valuable, and rewarding (Liu & Ren, 2022; Xia et al., 2020). Consequently, I believe gig workers are more likely to respond positively and allocate additional time and resources to successfully accomplish their assigned tasks. The completion of each task and the achievement of goals can increase gig workers' confidence (Shi et al., 2022). Previous research has verified that challenge stress is associated with individuals' positive outcomes such as job satisfaction, work engagement (Shi et al., 2022), positive affect, and career initiative (Liu & Ren, 2022). Thus, I proposed that gig workers who consider algorithms control as challenge stress will not create facades of conformity, which is a type of negative behavior. They will be more likely to engage in their work and eager for higher performance and will not passively treat the assignment task. Thus, I proposed the following hypothesis:
Hypothesis 3: Challenge stress will be negatively related to facades of conformity.

In contrast, I propose that when gig workers consider algorithmic control as hindrance stress, they will be likely to exhibit facades of conformity. The work assigned by algorithms will be considered unmanageable and unattainable. In this case, gig workers will experience nervousness and become pressured if they cannot obey the demands and complete the work because they will be punished or even fired. To increase their awards and obtain better impressions, gig workers will attempt to use impression tactics to influence the evaluation of algorithms. Thus, gig workers feeling hindrance stress will tend to suppress their values, conform to the rules and measures of algorithms, and exhibit fake behaviors (i.e., facades of conformity) to earn their rewards. Therefore, I proposed the following hypothesis:
Hypothesis 4: Hindrance stress will be positively related to facades of conformity.

Drawing on the challenge–hindrance stress model (Cavanaugh et al., 2000), I propose potential mechanisms between algorithmic control and gig workers' facades of conformity. Specifically, I suggest that algorithmic control may cause gig workers to feel challenge stress and hindrance stress. In turn, the feeling of hindrance stress may result in gig workers' facades of conformity, while the feeling of challenge stress may be not related to facades of conformity. Therefore, I proposed the following two hypotheses:
Hypothesis 5: The indirect effect of algorithmic control on gig workers' facades of conformity through challenge stress will be positive.
Hypothesis 6: The indirect effect of algorithmic control on gig workers' facades of conformity through hindrance stress will be negative.

The theoretical model is shown in Figure 1.

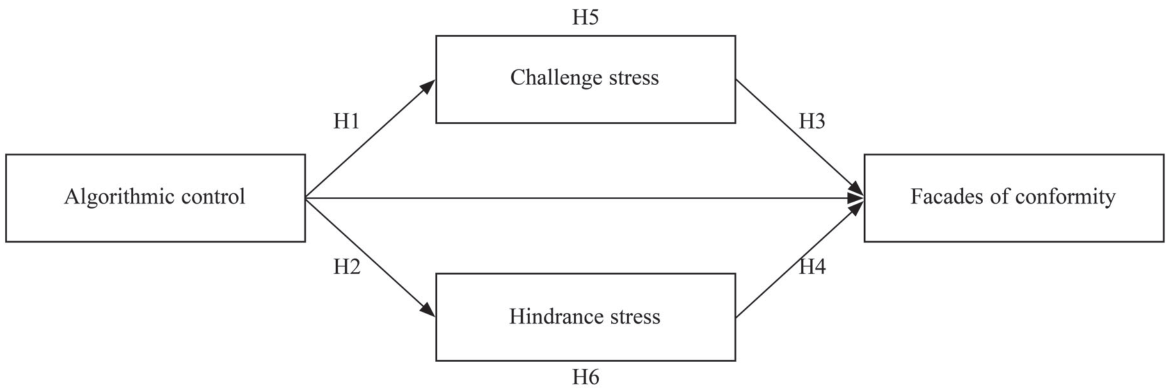

Figure 1. *The Conceptual Model.*
Note. H = hypothesis.

Method

Participants and Procedure

To test the model and hypotheses in this study, a survey instrument was developed and distributed to delivery persons from an online food delivery platform in China called Meituan. The data collection took place during May and August 2022. Due to the impact of the COVID-19 pandemic, questionnaires were distributed online. I contacted a region manager in a big city in central China, and he agreed to provide help. A total of 245 riders participated in the survey. I adopted a two-wave study to minimize common method bias, and the participants were told that the questionnaires were anonymous and only for academic research purposes.

All procedures in this study were conducted in accordance with the ethical standards of Taiyuan Institute of Technology, as well as the 1964 Helsinki Declaration and its subsequent amendments, or comparable ethical standards. Informed consent was obtained from all individual participants in the study.

In the first-wave survey, participants were invited to provide their demographic information (gender, age, education level, and daily work hours) and the survey measured their algorithmic control and facades of conformity. I collected 228 questionnaires. One month later, I conducted the second-wave survey among these respondents, and measured challenge stress and hindrance stress. A total of 214 questionnaires were returned. After excluding fifteen responses with incomplete information, the final sample consisted of 199 useful responses. Among the respondents, 149 (74.9%) were men and 50 (25.1%) were women. In terms of age distribution, 4 (2.0%) of participants were below 20 years old, 44 (22.1%) were aged 21–25, 42 (21.1%) were 26–30, 51 (25.6%) were 31–35, 33 (16.6%) were 36–40, and 25 (12.6%) were 41 or above. Regarding the educational background of the participants, 95 (47.7%) had obtained a high school education or lower, 37 (18.6%) possessed a vocational or technical school education, 43 (21.6%) held a college degree, 22 (11.1%) held a bachelor's degree, and 2 (1%) had a postgraduate degree. Among the participants, 37 (18.6%) reported working fewer than 8 hours per day, 102 (51.2%) worked between 8 and 10 hours, and 60 (30.2%) worked more than 10 hours per day.

Measures

The surveys were initially developed in English, so I translated them to Chinese using the back-translation procedure developed by Brislin (1980). All items in this study were assessed using a five-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*).

Algorithmic Control

I measured algorithmic control using the eleven items from an output control measurement model proposed by Weibel et al. (2016). A sample item is "Algorithms tell me about the level of achievement expected on sales volume or market share targets." Cronbach's alpha was .93, indicating that the measure was reliable.

Challenge Stress and Hindrance Stress

I adopted a five-item and a four-item scale developed by Cavanaugh et al. (2000) to measure challenge stress and hindrance stress, respectively. A sample item for challenge stress is "I have huge responsibility," and a sample item for hindrance stress is "Politics rather than performance always affects organizational decisions." Cronbach's alpha for challenge stress and hindrance stress were .85 and .79, respectively, indicating that the measures were reliable.

Facades of Conformity

I employed the six-item scale by Hewlin (2009) to measure gig workers' facades of conformity. A sample item was "I behave in a manner that obeys algorithms' demands even though I do not agree with them." Cronbach's alpha was .75, indicating that the measure was reliable.

Control Variables

The gender, age, education, and daily work hours of the participants in this study were controlled to reduce false results caused by probable effects of demographic characteristics, as done in previous research on facades of conformity (Chou et al., 2020; Liang, 2021).

Validity and Reliability

First, I conducted a series of confirmatory factor analyses to assess the discriminant validity of the key variables used in the study. I employed an item-to-construct balance technique (Little et al., 2002) to create item parcels of algorithmic control, which included three parcels (two parcels containing four items each, and one parcel containing three items). Other variables were not parceled because of having too few items. A hypothesized four-factor model was compared with three alternative models, and, as shown in Table 1, it produced a better fit than alternative models with perceived algorithmic control, challenge stress, hindrance stress, and facades of conformity items.

Table 1. *Results of Confirmatory Factor Analyses*

Factors	χ^2	*df*	RMSEA	CFI	TLI	SRMR	χ^2/df
A: Four-factor model[a]	230.85	110	.07	.93	.91	.05	2.09
B: Three-factor model[b]	294.22	113	.09	.88	.86	.07	2.60
C: Two-factor model[c]	498.43	115	.12	.76	.71	.09	4.33
D: One-factor model[d]	525.17	116	.13	.74	.70	.09	4.52

Note. RMSEA = root-mean-square error of approximation; CFI = comparative fit index; TLI = Tucker–Lewis index; SRMR = standardized root=mean-square residual. [a] Facades of conformity, Hindrance stress, Algorithmic control, Challenge stress combined. [b] Facades of conformity + Hindrance stress, Algorithmic control, Challenge stress combined. [c] Facades of conformity + Hindrance stress; Algorithmic control + Challenge stress combined. [d] Facades of conformity + Hindrance stress + Algorithmic control + Challenge stress combined.

Second, the descriptive statistics of the variables are presented in Table 2. The results indicate that all reliability estimates (the Cronbach's alpha values) for the variables exceed .7. Also, composite reliability and average variance extracted index (AVE) indicated good convergent validity. According to Table 2, the square root of AVE for each variable was greater than the correlations between pairs of constructs, providing evidence of discriminant validity (Fornell & Larcker, 1981).

Table 2. *Descriptive Statistics*

Variables	α	*CR*	*M*	*SD*	1	2	3	4	5	6	7	8
1. Age	—	—	—	—	—							
2. Gender	—	—	—	—	.05	—						
3. Educational level	—	—	—	—	−.35**	.15*	—					
4. Daily work hours	—	—	—	—	.11	−.14*	−.09	—				
5. Algorithmic control	0.93	0.94	3.62	0.72	.05	−.01	−.05	−.01	(.76)			
6. Challenge stress	0.85	0.89	3.35	0.76	−.01	−.08	.03	.14	.52**	(.79)		
7. Hindrance stress	0.79	0.86	3.28	3.01	.01	−.08	−.01	.09	.41**	.78**	(.79)	
8. Facade of conformity	0.75	0.83	3.01	0.67	.07	−.03	.01	.03	.24*	.50**	.56**	(.67)

Note. Numbers on diagonals indicate square root of average variance extracted.
* $p < .01$. ** $p < .05$.

Results

Table 2 shows the means, standard deviations, and correlations of all the variables. The results indicated that algorithmic control was positively correlated with challenge stress and hindrance stress, and hindrance stress was positively correlated with facades of conformity. These results supported Hypothesis 1, Hypothesis 2, and Hypothesis 4, respectively.

I conducted structural equation modeling with Mplus 7.0 to test Hypotheses 1–4. The model included four latent variables. In line with Hypotheses 1–4, the proposed model was tested by including algorithmic control, challenge stress, hindrance stress, and facades of conformity. This model showed satisfactory fit to the data for the mediated and direct links between algorithmic control and facades of conformity, $\chi^2/df = 1.02$, comparative fit index = .99, Tucker–Lewis index = .99, root-mean-square error of approximation = .03, standardized root-mean-square residual = .05. Standardized coefficient estimates associated with Hypothesis 1–6 are presented in Figure 2. Algorithmic control was positively related to challenge stress and to hindrance stress. Thus, Hypothesis 1 and Hypothesis 2 were supported, respectively.

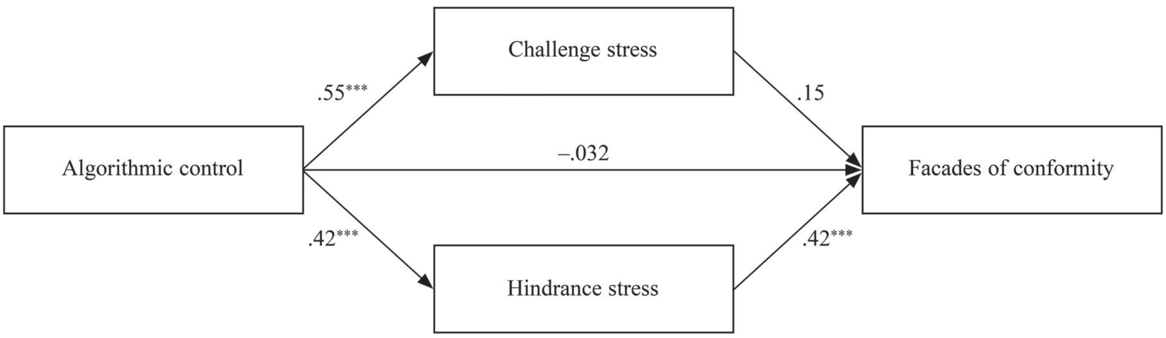

Figure 2. *Summary of Hypotheses*
*** $p < .001$.

As shown in Figure 2, hindrance stress was positively related to facades of conformity, thus Hypothesis 4 was supported. However, the coefficient between challenge stress and facades of conformity was not significant, thus Hypothesis 3 was not supported. Although the direct link between algorithmic control and facades of conformity was not significant, a mediation model without this direct link was tested. This mediation model also achieved a better fit to the data.

Finally, I conducted bootstrapping analyses to confirm the mediating role of challenge stress and hindrance stress, respectively (see Table 3). The results of bootstrapping analysis, k = 5000, revealed that the indirect effect between algorithmic control and facades of conformity through hindrance stress was significant. Thus, Hypothesis 6 was supported. However, the indirect effect between algorithmic control and facades of conformity through challenge stress was not significant. Thus, Hypothesis 5 was not supported.

Table 3. *Regression Results for Mediation*

Mediator	Challenge stress			
	b	*SE*	*t*	*p*
Algorithmic control	0.55	0.08	6.92	.00
Mediator	Hindrance stress			
	b	*SE*	*t*	*p*
Algorithmic control	0.42	0.09	4.66	.00
Variables	Facades of conformity			
	b	*SE*	*t*	*p*
Age	0.04	0.03	1.36	.17
Gender	0.03	0.08	0.40	.68
Educational level	0.02	0.04	0.67	.49
Daily work hours	–0.05	0.06	–0.85	.39
Algorithmic control	–0.03	0.06	–0.49	.62
Challenge stress	0.15	0.11	1.42	.15
Hindrance stress	0.42	0.10	4.04	.00
Indirect effect	Effect	*SE*	95% CI	
			LL	*UL*
Indirect effect of algorithmic control on facades of conformity via challenge stress	0.08	0.06	–0.03	0.21
Indirect effect of algorithmic control on facades of conformity via hindrance stress	0.17	0.05	0.07	0.32

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Discussion

Drawing upon the framework of challenge–hindrance stress, I investigated the effect of algorithmic control on gig workers' facades of conformity via the indirect effects of challenge stress and hindrance stress.

First, the results of this study contribute to the literature on algorithmic control, which is an emerging research area. In recent years, there has been a growing interest in the gig economy and algorithms, with several studies focusing on theoretical research. For instance, investigations have examined the activities performed by platforms (Vallas & Schor, 2020), the impact of algorithmic management on job design (Parent-Rocheleau & Parker, 2022), and the exploration of a research agenda for employment relations and human resource management (Duggan et al., 2020). Only a few scholars have adopted empirical methods to study the effects of algorithmic control, such as Wiener et al. (2021) and Cram et al. (2022). Contributing to the limited empirical research, my study investigated the relationship between algorithmic control and gig workers' facades of conformity, which is an important and negative behavior that relates to low job satisfaction (Chou et al., 2020). In addition, I have expanded the understanding of the outcomes of gig workers who work under algorithmic control. While previous studies have suggested the positive or negative impacts of algorithmic control, they did not concentrate on specific types (e.g., facades of conformity) of gig workers' actions. It is a significant gap, as Hewlin (2009) discovered that the facades of conformity could boost members' plans to exit the organization. This research examined the indirect consequences of algorithmic control on gig workers' facades of conformity and uncovered the underlying mechanism, which enhances the knowledge of the effects of algorithmic control.

Second, my study contributes to the challenge–hindrance stress model (Cavanaugh et al., 2000) by revealing an important psychological mechanism to explain the effect of algorithmic control on gig workers' negative behaviors. Prior research adopted the challenge–hindrance stress model to explain the antecedent of employees' behaviors and performance (Mitchell et al., 2019). From the perspective of individuals' feelings of stress, this study finds that the feeling of hindrance stress due to algorithmic control can incur a positive effect on facades of conformity, but the relationship between the feeling of challenging stress and facades of conformity is not significant. These findings contribute to the research on gig workers and provide a clear view of the influence of algorithmic control on gig workers' psychology and behaviors. In addition, this study has found that algorithmic control can promote both challenge and hindrance stress, consistent with the observation that most work demands can elicit a mix of positive and negative stress in individuals (Bliese et al., 2017; Nelson & Simmons, 2003).

Third, this study broadens the understanding of the antecedents of facades of conformity. Although previous studies have found that workplace behaviors, such as compulsory citizenship behavior, workplace bullying, and insecure attachment, significantly influence facades of conformity (Cheng et al., 2022; Liang, 2021), they did not focus on algorithmic control as a specific management model. In response to the call by Hewlin et al. (2016) for more research to deepen the understanding of facades of conformity, my study investigated the direct and indirect effects of algorithmic control on gig workers' facades of conformity. The results support my hypotheses and complement the literature on facades of conformity from the perspective of algorithmic control.

This study provides some valuable implications for platform companies and gig workers. With the increasing development of the gig economy, algorithms are used more and more to manage gig workers. It is important to know how to utilize algorithmic control to regulate gig workers' behaviors. First, platform companies should optimize algorithmic management, such as enhancing protection measures to prevent disclosure of gig workers' privacy, increasing the transparency of the algorithmic process, and designing more convenient feedback channels for gig workers. These approaches may increase gig workers' trust and improve their work willingness. Second, platforms should pay attention to gig workers' psychological health and improve algorithms to increase work interest, such as conducting mental health surveys, designing recreation games online, or organizing entertaining activities, which will prevent emotional exhaustion in gig workers and increase their well-being.

This study has several limitations. First, although the research explores the effect of algorithmic control on facades of conformity via stress, boundary conditions were not considered, which may influence the mediating effects. Future research could address this limitation by examining factors such as gig workers' proactive personality (Bergeron et al., 2014), algorithm transparency (Shin & Park, 2019), and the environment characteristics (Iqbal et al., 2021) to revisit the impact of algorithmic control on gig workers' behavior. Second, the data used in this study were obtained from only one source, introducing the possibility of common method variance. To mitigate this limitation, future research could collect data from multiple sources and levels. Third, the generalizability of my findings is constrained as the data were collected exclusively from gig workers in China, whereas attitudes towards algorithmic control may vary among individuals in different countries. To enhance the external validity of my findings, future researchers could conduct surveys among gig workers from diverse countries.

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