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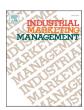
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Platform-provider relationship dynamics in the sharing economy: Challenges and implications

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ABSTRACT

The implications of the sharing economy for its providers have raised many concerns, against the backdrop of reported challenges in platform-provider relations. Even though the sharing economy market continues growing and such challenges become more pressing, the providers' perspective on work at platforms has not received the necessary attention. Given the gaps, the study aimed a) to explore the challenges in platform-provider relations, and b) to investigate the provider's perspective on platforms' responses to negative incidents in such relations. Using 510 responses from ridesharing providers, the structural equation modelling analysis of the challenges in relations showed that perceived information asymmetry, uncertain working conditions and relational opportunism predict dissatisfaction with platforms and a subsequent feeling of job insecurity. Latent class analysis based on the providers' perceptions of platforms' responses to negative work incidents resulted in three clusters of respondents. Those clusters had a significant variance in the perception of proactive, passive and defensive responses, and the job satisfaction level following the implementation of those responses. These findings contribute to the literature on stakeholder relations in the sharing economy and the organisational/psychological climate by extending knowledge about platform-provider relationship dynamics in digitally-mediated work environments. Managerial implications are also discussed in the paper.

1. Introduction

The sharing economy has been a controversial area of discussion since its emergence, due to digital technology coordinating all practices and processes related to resource allocation among participants in the economy (Acquier, Daudigeos, and Pinkse, 2017; Basukie, Wang, and Li, 2020; Davlembayeva and Papagiannidis, 2021; Martin, 2016). Companies like Uber, Airbnb and Etsy digitally govern relations between their stakeholders, which makes it possible for providers to capitalise on the exchange of owned resources with strangers through platform systems (Botsman and Rogers, 2011). Despite the creation of opportunities for individuals in economically and socially restrained circumstances, digital governance could potentially entail negative consequences for providers (Ahsan, 2018; Murillo, Buckland, and Val, 2017; Wentrup, Nakamura, and Ström, 2019). Platforms – i.e. platform management and owners - could leverage on digital systems to restrict the providers' control of their work terms and conditions, thus creating uncertainty around the distribution of rewards (Davlembayeva and Papagiannidis, 2021).

Even though attention has been paid to the potential implications for those participating in the sharing economy (Ahsan, 2018; Basukie et al., 2020; Murillo et al., 2017; Wentrup et al., 2019), this market continues to grow and the challenges are likely to become even more pressing. Since digital mediation results in ambiguity about the risks and benefits for stakeholders and deeply affects the governance of relations by platforms (Ahsan, 2018; Basukie et al., 2020; Murillo et al., 2017; Wentrup et al., 2019), it is important to study the digital and organisational aspects that may cause challenges for providers. In addition, the providers' views on how platforms deal with negative work incidents need exploring as this could offer valuable insight into the dynamics of platform-provider relations.

Given the above, two gaps in the literature guide this research. First, despite a plethora of conceptual and opinion papers unpacking the agency problems in organisations in the sharing economy sector (Ahsan, 2018; Davlembayeva and Papagiannidis, 2021; Garud, Kumaraswamy, & Roberts, 2020; Murillo et al., 2017), empirical evidence is still scarce. Empirical inquiry is mainly related to providers' motivations and commitment to exchanging resources via the platform system (Chen,

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Tamilmani, Tran, et al., 2022; Fest, Kvaløy, Nieken, & Schöttner, 2021; Wang, Asaad, and Filieri, 2019) or the negative impact of algorithmic management on ridesharing services (Basukie et al., 2020; Rosenblat and Stark, 2016). The management and relational factors of platform-provider interaction have not been sufficiently researched. As such, there is a gap in our knowledge about the factors contributing to providers' negative experiences of working in those companies. Such evidence is much needed given the growing number of individuals engaged in the provision of services or resources through online systems (Kuhn and Galloway, 2019; Watson, Kistler, Graham, et al., 2021).

Secondly, there is limited understanding about the providers' perspective on platforms' strategies for managing providers' challenges. Extant studies discuss potential approaches to motivating providers (von Richthofen and von Wangenheim, 2021) and providers' practices to circumvent the challenges to the environment managed by algorithmic systems (Bucher, Schou, and Waldkirch, 2021; Cheng and Foley, 2019; Sivarajan et al., 2021). Effective strategies to respond to stakeholders' challenges in the sharing economy need investigating, as they can be different from what the literature on traditional organisations' responses to institutional pressures offers (Clemens and Douglas, 2005; Etherington and Richardson, 1994; Oliver, 1991; Pedersen and Gwozdz, 2014). This is because platforms have typically identified their workforce as independent contractors. Such workforce classification leads to divergence in the perceptions and expectations of responsibility and obligations for both parties (Redfearn Iii, 2016).

In order to address the above two gaps this work poses two questions:

RQ1. What are the challenges in platform-provider relations contributing to the providers' perception of the work environment in the sharing economy?

RQ2. How do the providers' perceptions of platforms' responses to the challenges in platform-provider relations impact providers' evaluations of their job?

To address the first research question, we draw on prior literature on the organisational climate (Jones and James, 1979; Parker, Baltes, Young, et al., 2003) and providers' perspectives on the sharing economy (Acquier, Carbone, and Massé, 2019; Constantiou, Marton, and Tuunainen, 2017; Guo, Lin, and Li, 2020; Leoni and Parker, 2019). This helps conceptualise the factors pertaining to the organisational and digital aspects of relationship management (i.e. information asymmetry, algorithmic management unfairness, control, uncertain working conditions and relational opportunism), and their relation to dissatisfaction with platforms and perceived job insecurity. To address the second research question, we first identify the overarching proactive, passive and defensive strategies for stakeholder relationship management in line with prior literature (Clemens and Douglas, 2005; Etherington and Richardson, 1994; Oliver, 1991). We cluster the respondents based on their perception of the strategies that platforms have used to address negative incidents. Then, we compare the level of job satisfaction after the implementation of those strategies across the clusters. This approach makes it possible to understand the role of platforms' responses in mitigating the consequences of negative work experiences.

The study aims to make three contributions to the literature on the sharing economy and organisational behaviour. Firstly, the paper contributes to the research examining the challenges of providers involved in peer-to-peer services. This work provides comprehensive knowledge about the digital and organisational aspects of the environment undermining work experiences. Second, the study aims to shed light on platform-provider relationship dynamics by exploring providers' perceptions of platforms' responses to challenges in organisation-stakeholder relationships. Such findings complement research on companies' responses to institutional pressure and consumers' demands (Calo and Rosenblat, 2017; Garud, Kumaraswamy, & Roberts, 2020; Venkateswaran, Kumar, and Gupta, 2021). Third, the findings of the paper aim to contribute to the literature on the organisational and

psychological climate (Clemens and Douglas, 2005; Glick, 1985; James, Choi, Ko, et al., 2008; James and Jones, 1974; Jones and James, 1979; Li, Huang, and Chen, 2020; Parker et al., 2003). The findings advance our understanding of the factors that are important for creating a favourable work environment for sharing economy providers and offer evidence on effective stakeholder management strategies.

This paper is structured as follows: in the next section, we provide a review of the literature on platform-provider relations in the sharing economy. Following that, we present the theoretical foundation guiding the development of the research model and the study's hypotheses. In the methodology section, we detail the approaches taken to test the hypotheses and address the research objectives. This is followed by a presentation of the research results, a discussion of the findings, and the theoretical and practical implications. Then, we outline the limitations of the study and make recommendations for future research. The paper concludes with a short summary of the research objectives and the main findings.

2. Platform-provider relations in the sharing economy

The sharing economy is a socio-economic system enabling a peer-topeer exchange of resources by connecting providers and end-users/ customers using digital technology (Munoz and Cohen, 2017). It is represented by companies such as ZipCar, Uber and AirBnB, which use the principles of market, organisational mechanisms and digital mediation to govern the relations between stakeholders (Constantiou et al., 2017; Frenken and Schor, 2017). Intermediation by digital systems creates a triadic business model. This makes it possible for providers (e. g. drivers, hosts) to deliver resources and services to customers and capitalise on the efficiency of digitally-mediated transactions (Kumar, Lahiri, and Dogan, 2018). The relationships between platforms and providers are not clearly defined (Gerwe and Silva, 2020). Providers are often independent contractors/micro-entrepreneurs, who enjoy flexible working arrangements and have the power to negotiate their working conditions. In a practical sense, though, entrepreneurial freedom may not always be exercised, due to the control and regulation of providers by platforms (Redfearn Iii, 2016). Given the ambiguity about labour status, providers' expectations of employment benefits are misaligned with what platforms consider appropriate for independent contractors (Redfearn Iii, 2016).

Apart from providers' uncertain statuses, their work experiences can be challenged by the digital management of the workforce. Digital management leads to the accumulation of massive volumes of strategic data, which is spread asymmetrically between stakeholders (Dermawan, Ashar, Noor, et al., 2020). As a result, algorithmic management downplays the providers' role in decision-making with regards to the financial terms and the operational conditions they work in (Etter, Fieseler, and Whelan, 2019). As such, labour status and the ubiquity of digital systems in the functioning of platform-based companies create an environment that potentially impacts the dynamics of the relationships between stakeholders (Ahsan, 2018; Redfearn III, 2016).

Discussions about potential challenges and the implications of working in the sharing economy have been numerous (Ahsan, 2018; Davlembayeva and Papagiannidis, 2021; Muller, 2019; Murillo et al., 2017; Tan, Aggarwal, Cowls, et al., 2021). However, empirical evidence about the providers' perspective when it comes to working in such an environment has been scarce.

Following a systematic extraction of journal articles from the Scopus database and a manual review of the studies focusing on the challenges that sharing economy providers face while working for platform companies, Table 1 was compiled. Scholars have considered two broad areas. The first concerns providers' experiences and the implications of working in the sharing economy (Basukie et al., 2020; Giddy, 2021; Lee, Kusbit, Metsky, et al., 2015; Rosenblat and Stark, 2016; Wentrup et al., 2019). The second covers the measures that could improve work experience (Bucher et al., 2021; Cheng and Foley, 2019; Sivarajan et al.,

Table 1Research on providers' challenges in the sharing economy.

Author	Methodology	Context	Unit of analysis	Research area	Findings
Giddy (2021)	Survey	Ridesharing	Providers	Providers' work experiences and implications	Providers' challenges are rooted in physical pressure and psychological stress
von Richthofen and von Wangenheim (2021)	Secondary research, interviews	Hospitality	Providers, platforms	Measures for improving providers' work experiences	Platforms can motivate hosts by orienting, enabling, incentivizing and controlling strategies.
Sivarajan et al. (2021)	Case study	Ridesharing	Providers	Measures for improving providers' work experiences	Coping with the problem helps alleviate the psychological contract breach
Bucher et al. (2021)	Web mining	Knowledge/Skill- sharing platform	Providers	Measures for improving providers' work experiences	Providers develop tactics to circumvent unfavourable algorithmic rules of participation in platforms
Davlembayeva and Papagiannidis (2021)	Conceptual paper	General	Providers	Providers' work experiences and implications	Normative, economic and digital regulatory mechanisms governing relations within platforms create paradoxical implications
Tan et al. (2021)	Review	General	Providers	Providers' work experiences and implications	Ethical problems require policy changes
Basukie et al. (2020)	In-depth interviews	Ridesharing	Providers, consumers, external stakeholders	Providers' work experiences and implications	There are legal and ethical concerns stemming from big data and algorithmic management
Cheng and Foley (2019)	Thematic analysis	Hospitality	Providers	Measures for improving providers' work experiences	Knowledge of algorithmic decision-making helps providers adapt to the environment
Muller (2019)	Opinion paper	Ridesharing	Providers	Measures for improving providers' work experiences	Legal pitfalls causing challenges are identified and potential remedies are discussed
Wentrup et al. (2019)	In-depth interviews	Ridesharing	Providers	Providers' work experiences and implications	Providers feel distrust and lack of commitment to platforms; platforms exercise excessive control over providers
Ahsan (2018)	Conceptual paper	Ridesharing	Providers	Providers' work experiences and implications	Ethical implications and mechanisms to ensure ethical compliance are discussed
Murillo et al. (2017)	Conceptual paper	General	Providers, consumers, external stakeholders	Providers' work experiences and implications	Conflicting assumptions about social impacts are discussed
Calo and Rosenblat (2017)	Conceptual paper	Ridesharing	Consumer, providers, platforms	Providers' work experiences and	Regulatory pitfalls, discrimination and privacy issues are discussed
Rosenblat and Stark (2016)	Nethnography	Ridesharing	Providers	implications Providers' work experiences and	Imbalance of power between providers and platforms is enabled by digital intermediation
Lee et al. (2015)	In-depth interviews	Ridesharing	Providers	implications Providers' work experiences and implications	The impact of data-driven regulation is discussed. Drivers learn to adapt to interacting with digital systems

Note: Conceptual paper – a paper presenting new concepts, theoretical frameworks and ideas to broaden an existing scope of knowledge without empirical data; Review paper – a paper analysing and synthesising evidence in published literature; opinion paper – reflections of authors' opinions about a given topic; Nethnography – a study exploring individuals' activities and conversations in online communities; Thematic analysis – an empirical study focusing on the analysis of themes posted in online forums.

2021; von Richthofen and von Wangenheim, 2021).

The findings showed that providers' experiences and perceived implications of the participation in the sharing economy were mainly related to the technological side of managing stakeholder relations (Giddy, 2021; Lee et al., 2015; Rosenblat and Stark, 2016). For example, researchers have explored providers' views of interacting with digital systems during the processes of work assignments, communication and performance evaluation (Lee et al., 2015). The perception of the utility of algorithmic management by providers was found to be two-fold. On the one hand, it leads to unfair service ranking and customer allocation, and sets service fees that do not reflect the actual labour input (Basukie et al., 2020). On the other hand, systematic control over providers imposed by platforms using total surveillance and automated systems helps generate historical data about transactions. Such data is accumulated predominantly by platforms (Rosenblat and Stark, 2016). The generated transactional information helps platforms shape drivers' behaviour by imposing performance targets and setting policies (Rosenblat and Stark, 2016). The control over providers and the digital management of the workload has negative implications in terms of a lack of providers' commitment to and trust in platforms (Wentrup et al.,

2019). When it comes to the non-technical causes of negative experiences, it was found that providers feel physical pressure and psychological stress, which are attributed to the hyper competitiveness of the market and the nature of provider-customer relations (Giddy, 2021).

The literature on the measures improving work experiences has mainly explored effective motivational strategies for workers (von Richthofen and von Wangenheim, 2021), and providers' tactics to adapt to working conditions (Bucher et al., 2021; Cheng and Foley, 2019; Sivarajan et al., 2021). For stimulating workers' motivation, three common strategies have been employed, namely incentives (control and monetary rewards), communication and orientation, and the provision of the resources required for professional growth (von Richthofen and von Wangenheim, 2021). As far as providers' tactics were concerned, the literature offered insights into problem-coping and self-regulatory practices (Sivarajan et al., 2021; Bucher et al., 2021; Cheng and Foley, 2019). For example, providers experiment with and manipulate algorithmic systems to eliminate the feeling of anxiety and loss of control over them (Cheng and Foley, 2019; Sivarajan et al., 2021). The failure to address a problem results in psychological disengagement and counterproductive behaviour (Sivarajan et al., 2021). Also, to avoid conflicts at work, providers rationalise their work experiences and cope with emotions (Bucher et al., 2021).

The above shows that the providers' perspective on the dynamics of the platform-provider relationships have not received much attention. Specifically, two research areas have not received much attention. First, although the literature sheds some light on the negative impact of algorithmic management perceived by providers (Basukie et al., 2020; Lee et al., 2015; Rosenblat and Stark, 2016), little is known about the organisational and managerial factors contributing to the negative work environment in sharing economy companies. Secondly, apart from the insights into motivational tactics improving providers' services (von Richthofen and von Wangenheim, 2021), research on the platforms' responses and strategies directed at resolving negative work experiences is lacking. To further the knowledge on that front, the following section discusses the challenges contributing to the perception of the work environment in the sharing economy, which go beyond the functions of algorithmic management. Then, the study considers the relationship between the providers' perception of platforms' responses to the challenges and the association of those responses with job satisfaction.

3. Theoretical background and hypothesis development

3.1. Challenges in platform-provider relationships

To examine the challenges in platform-provider relationships in the sharing economy, this study borrows from the literature focusing on the role of the psychological and organisational climate in work environment perception (Glick, 1985; James et al., 2008; James and Jones, 1974; Jones and James, 1979; Li et al., 2020; Parker et al., 2003). The organisational climate refers to the factors forming the perception of the organisational environment. The psychological climate concerns the individual's perceptions of this environment, which can be examined by focusing on people as a unit of analysis (Jones and James, 1979). The concepts of the organisational and psychological climate have been helpful in understanding the implications of organisational attributes for individual behaviour (Guo, Wang, and Feng, 2019; Kazemi & Corlin, 2021; Menguc, Auh, Yeniaras, et al., 2017; Theurer, Tumasjan, and Welpe, 2018; Vveinhardt and Bendaraviciene, 2022).

The evaluation of the environment at work is shaped by the perception of organisational characteristics, job autonomy, role ambiguity, leader support, and work-group cooperation (Jones and James, 1979; Parker et al., 2003; Vveinhardt and Bendaraviciene, 2022). Given the focus on the digitally-mediated work environment, this study focuses on the first three. Specifically, organisational characteristics refer to the evaluation of organisational innovation and information processes (Parker et al., 2003). Sharing economy companies are characterised by a non-traditional governance of relations, manifested by algorithmic management and asymmetrical information distribution among stakeholders (Bucher et al., 2021; Rosenblat and Stark, 2016). Perceived job autonomy is the perception of one's own sovereignty in relation to job goals, procedures and priorities (Strutton, Pelton, and Lumpkin, 1993). This perception stems from desires for independence and responsibility (De Clercq and Brieger, 2022; Locke, 1976). The perception of autonomy is weakened when a company has strong control and interference in workers' activities (Hartmann and Rutherford, 2015). Similarly, platforms exercise control to restrict service customisation and monitor all aspects of relations between stakeholders (Constantiou et al., 2017). Role ambiguity reflects the individual's value and the desire for clarity and fairness (Locke, 1976; Yan, Ni, Chien, et al., 2021). Conflicts around role ambiguity are common in sharing economy companies, which often rely on informal policies and vaguely delineated role boundaries (Botsman, 2017). Informal regulation creates uncertain working conditions (Eckhardt, Houston, Jiang, et al., 2019) and enables the possibility of exercising opportunism in favour of platforms (Zietlow, 2020).

The leader support dimension is not examined in the study. This concerns support in goal achievement through leaders' interaction with

subordinates and hierarchical and psychological influence (James et al., 2008; Jones and James, 1979). The importance of leaders in supporting employees is inherent to organisations with a hierarchical power structure (Plowman, Solansky, Beck, et al., 2007; Vecchio, Justin, and Pearce, 2010) and is not common for decentralised systems, such as online sharing markets (Ahsan, 2018). Similarly, the work-group cooperation dimension refers to the resources enabling the development of team collaborations (Jones and James, 1979), which are not typical of peer-to-peer interactions (Acquier et al., 2017).

Given the above, this study hypothesises that the evaluation of the work environment in the sharing economy is explained by two aspects of the platform-provider relationship. First, the perception of an unfavourable working environment can be rooted in the characteristics of the companies, making them distinctive from other traditional organisations. Those perceptions refer to algorithmic management unfairness and the information asymmetry attributed to the digital mediation of relations. Second, the challenges faced by providers could be a result of factors attributed to the managerial decisions of platforms, namely uncertain working conditions, control and relational opportunism. As the above factors can undermine job flexibility, role clarity and fair work procedures and outcomes (Acquier et al., 2019; Clausen, Pedersen, Andersen, et al., 2022; Constantiou et al., 2017; Guo et al., 2020; Leoni and Parker, 2019; Najafi-Tavani, Zaefarian, Robson, et al., 2022) they may be related to dissatisfaction with the company. In turn, such dissatisfaction could be positively related to the feeling of job insecurity (Fig. 1). The rationale for each of the hypotheses is discussed in more detail below.

3.1.1. The impact of platform characteristics on dissatisfaction with platforms

Algorithmic management and information asymmetry are the two main factors attributed to the digital management of stakeholders in sharing economy companies. These factors arguably affect the perception of the work environment and the satisfaction with the company accordingly (Basukie et al., 2020; Bucher et al., 2021; Rosenblat and Stark, 2016). Algorithmic management is implemented with the aim of automating company policies and procedures (Basukie et al., 2020; Rosenblat and Stark, 2016). For example, systems for price setting, work assignment, and feedback/evaluation minimise human supervision and simplify decision-making (Heylighen, 2017; Rosenblat and Stark, 2016). However, algorithmic management can trigger providers' concerns in relation to several work experiences. With service ranking systems based on numerical metrics, the evaluation of performance lacks qualitative indicators. Although reviews may be biased, providers do not have an opportunity to negotiate or object to the feedback once it is submitted online (Basukie et al., 2020; Lee et al., 2015). To improve customer experience, algorithms are coded in such a way as to promote experienced/high-ranked providers, thus potentially decreasing the opportunities of others (Basukie et al., 2020). Thus, the algorithmicbased procedures and the distribution of resources could be considered unfair by providers, as they have been found to undermine their work experiences (Rosenblat and Stark, 2016).

The perception of unfair processes within the company and rewards allocation has a negative impact on employees' well-being and behaviour (Chiu, Chiu, and Chang, 2007; Piccoli and De Witte, 2015; Rubenstein, Allen, and Bosco, 2019). This leads to emotional exhaustion (Piccoli and De Witte, 2015) and outcome dissatisfaction (Kim, Callan, Gheorghiu, et al., 2018). In contrast, a feeling of fairness in relations between two or more parties increases satisfaction with the interaction, collaboration quality and commitment to relations (Chiu et al., 2007; McFarlin and Sweeney, 1992; O'Leary, Gleasure, O'Reilly, et al., 2022). Given that, the first hypothesis states:

Hypothesis 1. A provider's perception of algorithmic management unfairness in a sharing economy company positively correlates with dissatisfaction with the company.

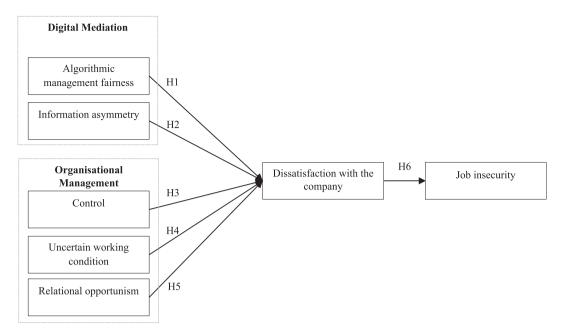


Fig. 1. Research model.

The automation of processes in companies implies information asymmetry, resulting in a disproportionate amount of data accessible for providers and platforms. While data empowers platforms to make strategic decisions in terms of predicting demand and setting prices, providers often have little awareness of these changes (Ahsan, 2018; Basukie et al., 2020). Feedback channels are highly automated. Communication from providers to the management of platforms goes through decentralised support systems, which often send template responses to providers' inquiries (Rosenblat and Stark, 2016). The digital system enabling such forms of interaction is perceived by providers as discriminatory, and can negatively affect job satisfaction and organisational behaviour (Villanueva-Flores, Valle, and Bornay-Barrachina, 2017). With algorithmic rules guiding relations between parties, information asymmetry impedes behaviour due to the increasing perception of outcome uncertainty (Pavlou, Liang, and Xue, 2007). When uncertainty is resolved, the cooperation between parties may result in satisfaction (Jermias and Yigit, 2013). On the other hand, when a strong belief about asymmetry is not downplayed, it is more likely to result in a negative perception of platforms and dissatisfaction with the company. Therefore, the second hypothesis postulates:

Hypothesis 2. A provider's perception of information asymmetry in a sharing economy company positively correlates with dissatisfaction with the company.

3.1.2. The impact of the job autonomy inhibitors on dissatisfaction with platforms

The main factor impeding job autonomy is excessive control and the supervision of subordinates (Hartmann and Rutherford, 2015), such as when platforms use organisational coordination mechanisms to control their providers (Constantiou et al., 2017; Guo et al., 2020; O'Regan and Choe, 2017). A high degree of control entails the standardisation of services and monitoring of all aspects of relations between stakeholders, which limits providers' independence in transactions. Control enables platforms to quantify performance indicators and minimise costs (Constantiou et al., 2017). For example, commercial ridesharing companies use apps as a single point of control for every work process in which drivers are involved (Constantiou et al., 2017; Guo et al., 2020). Accommodation sharing companies manage relations by controlling the hosts' access to the marketplace. They introduce policies that make some individuals ineligible to participate in sharing and therefore vulnerable

to changing company standards, policies and requirements (O'Regan and Choe, 2017). As a result, the lack of autonomy and freedom in work procedures can negatively influence work-life balance, well-being (Clausen et al., 2022; De Clercq and Brieger, 2022) and satisfaction with the job (Cooper and Sloan, 2018). Hence, the third hypothesis states:

Hypothesis 3. A provider's perception of control in a sharing economy company positively correlates with dissatisfaction with the company.

3.1.3. The impact of role ambiguity factors on dissatisfaction with platforms

In the context of the sharing economy, role ambiguity factors are associated with the uncertainty of terms and conditions under which providers participate and the implications that such uncertainty entails (Botsman, 2017; Eckhardt et al., 2019; Zietlow, 2020). Specifically, the automated management of relations makes providers abide by platforms' rules, loosens their independence, and could potentially create a gap between what providers expect and what platforms offer (Guo et al., 2020; Leoni and Parker, 2019). Perceived uncertainty and ambiguity in the workplace undermine the positive perception of the work environment (James et al., 2008). They lead to psychological strain, dissatisfaction with the job and company, and turnover intention (Hartmann and Rutherford, 2015; Jermias and Yigit, 2013; Lin, Peng, Au, et al., 2021; O'Driscoll and Beehr, 1994). Therefore, we propose that:

Hypothesis 4. A provider's perception of uncertain working conditions in a sharing economy company positively correlates with dissatisfaction with the company.

The implication of uncertain work terms and conditions is relational opportunism, which weakens the ethical grounds of the sharing economy (Acquier et al., 2019). An act of opportunism is self-interest seeking, when one's own interests prevail over the interests of another party (Hodgson, 2004; Williamson, 1993). In the context of the relationship between platforms and providers, opportunism reflects an overall perception of the inequitable distribution of rewards, and unfair treatment in terms of the lack of communication and accountability (Etter et al., 2019; Murillo et al., 2017). In contrast to algorithmic management, whose technological properties can enable unfairness (Basukie et al., 2020; Rosenblat and Stark, 2016), relational opportunism results from the managerial decision to adjust work terms and

conditions to maximise gains, irrespective of the potential disadvantages for providers (Acquier et al., 2019). Opportunism in relations increases as platforms become more oriented towards an economic model of sharing, which contradicts the logic of equitable relations (Acquier, Carbone, and Vasseur, 2020).

Perceived opportunism in the work environment has an adverse effect on organisational behaviour (Bizzi, 2018; Rawwas, Vitell, and Barnes, 1997). The perception of the opportunistic attitude of a partner can have a negative impact on satisfaction with the partner, unless it is attenuated by communication efforts directed at negotiating cooperative structures (Gassenheimer, Baucus, and Baucus, 1996). Passive opportunism (e.g. avoidance of obligations) is more tolerable in interorganisational relations than active opportunism (e.g. deliberate actions, such as lying or cheating) (Seggie, Griffith, and Jap, 2013). Still, any form of opportunism is detrimental to relations, as it may lead to conflict between parties and the dissolution of the partnership (Høgevold, Svensson, & Roberts-Lombard, 2020). Therefore, the next hypothesis postulates:

Hypothesis 5. A provider's perception of relational opportunism in a sharing economy company positively correlates with dissatisfaction with the company.

3.1.4. The impact of dissatisfaction with platforms on job insecurity

The feeling of dissatisfaction is a negative affect associated with the perception that the job does not fulfil one's own values (Henne and Locke, 1985; Locke, 1976). Unrealised values may refer to a lack of job autonomy, support and promotion (Henne and Locke, 1985). When employees are not satisfied with the workplace environment, they develop a feeling of insecurity (Glambek, Matthiesen, Hetland, et al., 2014). Job insecurity refers to the perception that a job is under threat and an employee has limited resources and opportunities to eliminate the threat (Ashford, Lee, and Bobko, 1989). Feeling insecure about a job means that employees are uncertain whether they will be able to work in such conditions in the future. This belief is different from the perception of being made redundant, as this reflects a personal experience of the job environment, rather than the perception of the company's intentions (van Vuuren and Klandermans, 1990). The feeling of job insecurity results from employees' dissatisfaction (Näswall, Sverke, and Hellgren, 2005). Therefore, when providers in the sharing economy face challenges rooted in opportunism, control and uncertain working conditions, dissatisfaction with the company is a likely psychological state correlating with perceived job insecurity. Given the above, we postulate

Hypothesis 6. A provider's dissatisfaction with a sharing economy company positively correlates with a feeling of job insecurity.

3.2. Responses to challenges in platform-provider relations

To examine the providers' perception of platforms' responses to negative incidents in platform-provider relationships, this study refers to the literature on firms' responses to institutional pressure and intraorganisational conflicts (Etherington and Richardson, 1994; Kluemper, Taylor, Bowler, et al., 2019; Oliver, 1991). From the institutional and social relationship perspectives, strategies can be grouped into three broad categories. These are: a) active compliance measures to address the problem; b) passive non-compliance tactics to deny it; and/or c) defensive non-compliance measures to resist the pressure (Clemens and Douglas, 2005; Etherington and Richardson, 1994; Henning, Jones, and Holdford, 2005; Kluemper et al., 2019; Oliver, 1991; Pedersen and Gwozdz, 2014). Specifically, from the institutional perspective, proposed compliance and non-compliance strategies help companies navigate the institutional environment (e.g. government, opinion groups) (Clemens and Douglas, 2005). Compliance strategies demonstrate the acceptance of the norms and rules imposed by institutions and can entail acts of balancing the interests of stakeholders. Defensive noncompliance strategies demonstrate the opposition to pressure. Opposition can be in the form of direct attacks at the source of pressure or attempts to change the rules and norms of the institution. The middle ground is passive non-compliance, which means that organisations disguise non-conformity and refrain from any actions that would demonstrate an organisational position (Etherington and Richardson, 1994; Oliver, 1991).

From the social perspective, compliant and non-compliant strategies can be observed in dyadic and group relations (Ferrin, Kim, Cooper, et al., 2007; Henning et al., 2005; Kluemper et al., 2019). The violation of the rights of one party may undermine justice in relations. As an act to restore justice, the offender could try to resolve the problem (active compliance). Alternatively, they could defend themselves by assigning blame to the party violating their rights (defensive non-compliance) (Henning et al., 2005; Kluemper et al., 2019). The third response is to choose a passive denial strategy and pretend that the act causing injustice never happened (Ferrin et al., 2007).

In the context of the sharing economy, when providers raise issues, platforms were reported to resort to active compliance (problem resolution), defensive non-compliant (victim blaming) and passive non-compliant (denial) strategies (Acevedo, 2016; Moon, Wei, and Miao, 2019). Platforms forced providers to take the responsibility for negative incidents without thorough investigation of the conditions causing them (Moon et al., 2019). Also, they refrained from reacting to incidents and complaints (Acevedo, 2016; Cheng and Foley, 2019; Griffiths, Perera, and Albinsson, 2019) and undertook measures to resolve them (Cheng and Foley, 2018). Considering the above findings, the next hypothesis states:

Hypothesis 7. There are groups of providers who have a different perception of the problem resolution, denial and victim-blaming strategies employed by the companies to respond to negative incidents in platform-provider relations.

Problem resolution, victim-blaming and denial are more likely to have different implications for providers. When a company puts effort into resolving a complaint, this results in satisfaction (Cai and Chi, 2018). The persistence of the problem triggers anxiety, though (Cheng and Foley, 2019). Blame attribution in conflicts was found to negatively impact organisational behaviour (Aquino, Tripp, and Bies, 2001). For example, to retain the customer satisfaction level, AirBnB penalised providers in conflicts between renters and hosts even though they might have had insufficient information for decision making. Such decisions made providers unhappy (Moon et al., 2019). However, negative implications of victim blaming are preconditioned by the social context in which victim-offender relationships take place. It is suggested that victims refrain from consequent negative behaviour, if the cost of such consequences is high. Cost evaluation, in turn, can be explained by the socio-economic status of the parties in relationships (Aquino et al., 2001). A denial strategy can be effective in reducing the perception of the company's responsibility for a negative event, when the event has implications for both the company and its stakeholders (Ham and Kim, 2019). Hence, in a situation of providers' challenges, denial can be less helpful to mitigate the consequences of negative work experiences. Therefore, this study hypothesises:

Hypothesis 8. Providers differ in the level of job satisfaction following the implementation of the problem resolution, denial and victimblaming strategies.

4. Methodology

4.1. Data collection and sampling

This study adopted a cross-sectional research design to collect data about providers' perceptions of negative work experiences and firm strategies in the sharing economy. To recruit respondents for the study,

we used a purposive sampling technique. An independent research company provided access to a sample of individuals offering ridesharing services in companies such as Uber, Didi and BlaBlaCar. Ridesharing services represent one of the largest and fastest-growing segments (Salas, 2021), with arguably least favourable working conditions (Ahsan, 2018; Muller, 2019). In order to avoid limiting the findings of the study to particular geographical location/market conditions, respondents from different countries could participate in the survey.

Data collection was conducted online in September 2021. The research company distributed a URL to an online survey to the respondents. The data was collected anonymously, following the respondents' consent to participate in the survey. The questionnaire consisted of three parts, with questions aiming to 1) explore the negative work experiences that the providers had while working at sharing economy companies, 2) measure the strategies that companies undertook to address those problems, and 3) collect descriptive data (work patterns, socio-demographic profile), which could help provide a richer contextual interpretation of the results.

Given our study objectives, to be eligible to participate in the survey, the respondents should have had a negative work experience while working at those companies. To ensure that the providers met the eligibility criteria and had the necessary knowledge and experience to participate in the study, the respondents answered screening questions prior to commencing the study. Only those who had negative experiences while working in sharing economy companies and confirmed their willingness to answer questions proceeded to fill out the questionnaire. The final sample consisted of 510 valid responses. The number of observations was higher than the minimum sample size of 146 people, recommended by G*power 3 – a software package used for calculating statistical power in social and behavioural research (Faul, Erdfelder, Lang, et al., 2007). Table 2 demonstrates that the sample was representative of the population of ridesharing drivers (Berliner and Tal, 2018; Little, 2019; Statista, 2021).

4.2. Measurements

The items for measuring challenges in platform-provider relations, satisfaction with the company and job insecurity are provided in Table 3. To ensure the validity and reliability of the scales, all items were adopted from research on information system management, interorganisational and intra-organisational relations. The construct measurements were adapted to the context of this research, without changing the meaning of the items. All items, except dissatisfaction with the company, were measured using a Likert scale, with anchors between "1 – strongly disagree" to "7 – strongly agree". Dissatisfaction with the company was assessed by a 7-point scale, where "1" characterised a negative state and "7" characterised a positive state. For the data analysis, the dissatisfaction scale was reverse-coded.

To measure the role of the strategies that platforms used to mitigate providers' challenges, we used the problem resolution, denial, victim blaming and job satisfaction scales (Table 4). All items, except job dissatisfaction, were measured using a frequency scale, ranging from "1 - never" to "7 - always". Job satisfaction was assessed by a 7-point scale, with "1" being a negative anchor and "7" being a positive anchor.

4.3. Data analysis

For the first analysis two-step structural equation modelling was conducted. First, we performed confirmatory factor analysis using SPSS v.25 and Amos v.25 to ensure the validity and reliability of the measurements. The CFA model fit indices were satisfactory: $\chi^2(329) = 795.74$, P = 0.000, CMIN/DF = 2.419, CFI = 0.946, RMSEA = 0.053. Factor loadings (>0.6) Cronbach's α (>0.7) and construct reliability coefficients (>0.7) were above the acceptable threshold, indicating the reliability of the constructs, while average variance extracted (AVE > 0.5) demonstrated no convergent validity issues (Hair, 2014) (Table 3).

Table 2
The demographic profile of respondents.

	Demographic data	Number of respondents (N =	Percent of respondents
		510)	(%)
	Male	266	52.2
Gender	Female	242	47.5
	Non-binary	2	0.4
	Under 20	20	3.9
	20–29	337	66.1
Age	30–39	118	23.1
0-	40–49	25	4.9
	50–59	9	1.8
	Over 60	1	0.2
	Some high school or less	5	1.0
	High school graduate or	93	18.2
	equivalent		
	Vocational/technical		
	school (two year	19	3.7
	program)		
	Some college, but no	93	18.2
Education	degree		
	College graduate (four	126	24.7
	year program)		
	Some graduate school,	21	4.1
	but no degree		
	Graduate degree (MSc,	137	26.9
	MBA, PhD, etc.) Professional degree (M.		
	D., J.D., etc.)	16	3.1
	£0-£24,999	285	55.9
	£25,000–£49,999	149	29.2
Income	£50,000-£74,999	47	9.2
meome	£75,000-£99,999	16	3.1
	More than £100,000	13	2.5
	1–20%	235	46.1
	21–40%	136	26.7
Income from	41-60%	63	12.4
ridesharing	61-80%	42	8.2
	81-100%	34	6.7
	Independent contractor	0.45	(7.6
Emmlorum omt	(self-employed)	345	67.6
Employment	Employee	114	22.4
	I do not know	51	10.0
	<1 year	343	67.3
	1 year	93	18.2
	2 years	48	9.4
Tenure	3 years	19	3.7
	4 years	4	0.8
	5 years	1	0.2
	>5 years	2	0.4
	up to 10 h	187	36.7
Work hours per	11–20 h	147	28.8
week	21–30 h	95	18.6
	31–40 h	51	10.0
	>40 h	30	5.9
	Financial	278	54.5
	(underpayment)		
	Organisational	250	60.0
Challenges	(management,	352	69.0
Ş	communication)		
	Relational (lack of concern, favouritism)	290	56.9
	Technical (App faults)	166	32 5
	recinical (App lauits)	100	32.5

Table 5 presents the results of the convergent validity test. Diagonal figures show variance extracted estimates that are greater than the between-construct squared correlation estimates, suggesting that there were no discriminant validity concerns. The second step was testing the path analysis using Amos v.25 (Table 6).

To explore the association of perceived platform strategies with job satisfaction, two types of analysis were undertaken: a) latent class analysis and b) the analysis of variance. Prior to embarking on the analysis, the reliability of the constructs measuring problem resolution, denial, victim-blaming and job satisfaction was confirmed by factor

Table 3 Measurement items for analysis 1.

Measurement items for analysis 1.				
Measurement items	Loading	C.R.	AVE	Cronbach's alpha
Information asymmetry (Dunk, 1993; Mishra, Heide, and Cort, 1998; Pavlou et al., 2007)		0.83	0.56	0.83
The company had more information than me about	0.82			
the ride pricing system				
the underlying processes of passenger allocation	0.83			
how my performance was evaluated	0.81			
how my income was calculated Algorithmic management	0.81	0.89	0.73	0.89
unfairness (Choi, 2008)				
Algorithmic management of relations within the company always resulted	0.89			
in unfair deals for me				
Algorithmic management was an	0.92			
unfair system Unfairness is the best word to describe	0.89			
algorithmic management				
Uncertainty of working conditions (Pavlou et al., 2007; Torkzadeh and Dhillon, 2002)		0.91	0.68	0.91
When working at the company, I felt	0.86			
a high degree of uncertainty about				
my working conditions uncertainty associated with my	0.89			
working conditions				
that I was exposed to many	0.88			
uncertainties about my working conditions				
that my working conditions were	0.87			
unsettled that I could not predict the changes in	0.80			
working conditions I might have Control (Provan and Skinner, 1989)	0.00	0.83	0.55	0.812
When working at the company even small matters about my work had to be referred to someone higher	0.81			
up for a final answer I had to get permission before I did almost anything related to my job	0.86			
I could take very few actions in my job unless I got the company's approval	0.87			
the company made major decisions affecting my job without informing me in advance	0.67			
Relational opportunism (Parkhe,		0.86	0.56	0.86
1993) The company	0.77			
never provided a completely truthful picture of their business processes				
was never completely honest when managing relations with their	0.85			
drivers tended to alter facts about work terms and conditions slightly for their	0.83			
benefit promised to do things without actually	0.77			
doing them later	0.70			
seemed to feel that it is OK to do anything that would help further their own interests	0.78			
Dissatisfaction with the company (0.89	0.73	0.89
Crosby and Stephens, 1987; Westbrook, 1980; Westbrook and Oliver, 1981)				
The problems that I faced while	0.89			
working at the company made me extremely dissatisfied – extremely				
satisfied with the company extremely displeased – extremely	0.90			
pleased with the company				

Table 3 (continued)

Measurement items	Loading	C.R.	AVE	Cronbach's alpha
extremely discontented – extremely contented with the company	0.87			
feet terrible – extremely delighted about the company	0.81			
Job Insecurity (De Witte, 2000; Vander Elst, De Witte, and De Cuyper, 2014)		0.87	0.62	0.87
The problems that I faced while working at the company increased the chances that I would lose my job	0.83			
made me unsure if I could keep my job	0.86			
made me feel insecure about the future of my job	0.83			
made me think that I might lose my job in the near future	0.87			

Table 4 Measurement items for analysis 2.

Measurement items	Loading	$ \begin{array}{c} \text{Cronbach's} \\ \alpha \end{array} $
Problem resolution (Carver, Scheier, and Weintraub,		0.89
1989)		
The company usually	0.86	
took actions to try to resolve the problems		
put effort into doing something about the problems	0.90	
did what had to be done to resolve issues, one step at a time	0.89	
took direct actions to get around the problems	0.85	
Denial (Carver et al., 1989)		0.92
The company usually	0.82	
refused to accept that the problems existed		
pretended that the problems did not exist	0.93	
acted as though the problems had never emerged	0.93	
pretended that the problems were not real	0.91	
Victim blaming (Aquino et al., 2001)		0.92
The company usually	0.91	
blamed me		
wronged me	0.92	
played victim	0.87	
made me feel guilty	0.88	
Job satisfaction (Crosby and Stephens, 1987;		0.93
Westbrook, 1980; Westbrook and Oliver, 1981)		
The actions taken by the company to address the	0.92	
problems faced made me		
extremely dissatisfied – extremely satisfied with my job		
extremely displeased – extremely pleased with my job	0.92	
extremely discontented – extremely contented with my job	0.92	
feel terrible - extremely delighted about my job	0.89	

loadings (>0.6) and Cronbach's α (>0.7) (Table 4). Then, we conducted a latent class analysis using Latent Gold 6.0 to cluster the sample based on the providers' views on companies' responses to challenges. Latent class analysis generates the classes of cases (i.e. respondents) based on the mixture of underlying indicators by minimising variation within classes and maximising variations between classes (Vermunt and Magidson, 2002). Such a procedure helped identify the sub-segments in the population with relatively homogeneous characteristics. Latent class analysis was deemed appropriate for the objective of the research, given that platforms could use a combination of different strategies to address providers' problems.

The clustering was conducted in two steps (Vermunt, 2010). We identified a statistically significant model with the optimal number of classes. Then, we assigned class membership to responses in the dataset, to group the sample into categories based on the dominant or a distinct combination of strategies. To understand the association of strategies with job satisfaction, an analysis of variance using ANOVA and

Table 5
Convergent and discriminant validity test.

	RO	CC	AMU	IA	UWC	JI	DISC
Relational opportunism	0.746						
Centralised control	0.523	0.745					
Algorithmic management unfairness	0.660	0.655	0.852				
Information asymmetry	0.517	0.263	0.366	0.747			
Uncertain working conditions	0.693	0.428	0.532	0.535	0.826		
Job insecurity	0.533	0.474	0.439	0.339	0.578	0.791	
Dissatisfaction with the company	0.483	0.300	0.310	0.414	0.492	0.300	0.854

Table 6Path analysis results.

Hypothesis	Path	Coef.	t-test
H1	Algorithmic management - > Dissatisfaction with the company	-0.10	-1.43
H2	Information asymmetry - > Dissatisfaction with the company	0.16	2.90 **
Н3	Control - > Dissatisfaction with the company	0.10	1.53
H4	Uncertain working conditions - > Dissatisfaction with the company	0.26	3.86
H5	Relational opportunism- > Dissatisfaction with the company	0.25	3.08 **
Н6	Dissatisfaction with the company - $>$ Job Insecurity	0.34	6.75 ***

Significant at p: * < 0.05; ** < 0.01; *** < 0.001.

Univariate General Linear Model was performed. The tests enabled us to estimate the significance of variance in job satisfaction and the effect size explained by the identified classes.

5. Results and findings

5.1. Structural model

The results of the analysis of the structural model demonstrated satisfactory model fit indices: χ^2 (334) = 955.34, P = 0.00, CMIN/DF = 2.860, CFI = 0.928, RMSEA = 0.06. The model explained 33% of the variance for Dissatisfaction with the Company and 12% of the variance for Job Insecurity. The results of hypothesis testing are presented in

Table 6 and Fig. 2. The effect sizes and significance of the relationships remained unchanged when controlling for the effects of respondents' gender, education, age, overall income and income from ridesharing.

5.2. Latent class analysis

Class analysis provided the output with five models and their statistical criteria: log-likelihood (LL), Bayesian Information Criterion (BIC) based on LL, number of estimated parameters (Npar), the significance level (*p*-value) of the model, and the proportion of classification errors (Class.Err.) (Table 7). Log-likelihood represents the number of unexplained observed relationships between the variables. To confirm model fit, *p*-value should be above 0.05. Compared to the Bayesian Information Criterion, log-likelihood does not account for the sample size, which may affect the results of model comparison. That is why comparison of a model based on the BIC value is a preferred option (Haughton, Legrand, and Woolford, 2009; Kankaraš, Moors, and Vermunt, 2010). The model with three classes demonstrated the most optimal model fit, as it has the minimum BIC value (Haughton et al.,

Table 7Log-likelihood statistics for model selection.

Model	Number of clusters	LL	BIC(LL)	Npar	p-value
1	1-Cluster	-2615.00	5335.99	17	0.00
2	2-Cluster	-2511.51	5153.95	21	0.00
3	3-Cluster	-2469.57	5095.00	25	0.00
4	4-Cluster	-2461.27	5103.35	29	0.00
5	5-Cluster	-2448.02	5101.78	33	0.03

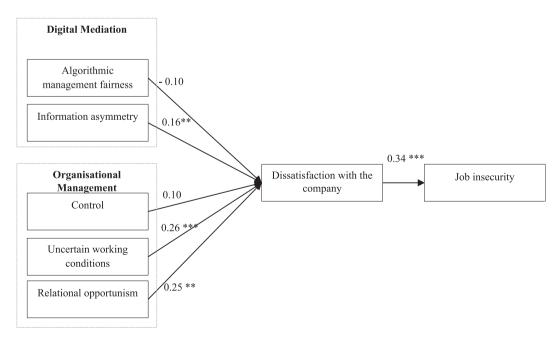


Fig. 2. Structural model. Significant at p: * < 0.05; ** < 0.01; *** < 0.001.

2009). To ensure the statistical significance of each indicator (i.e. firm strategies) in predicting classes in the third model, Wald statistics was performed (Vermunt and Magidson, 2002; Vermunt and Magidson, 2005a; Vermunt and Magidson, 2005b). The predictive power and p-values for the problem resolution ($p=0.000,\,R^2=0.20$), problem denial ($p=0.000,\,R^2=0.53$) and victim-blaming ($p=0.000,\,R^2=0.55$) scales showed that the indicators made a significant contribution to class generation.

Table 8 presents the mean values of each indicator in each class. Indicators were measured using a scale from "1-never" to "7-always". The number of respondents in each class means that platforms commonly use a combination of three strategies to address negative incidents in platform-provider relations. It was reported that platforms occasionally respond to providers by resolving problems, denying the existence of problems and blaming providers for the problems occurring. A lower number of respondents reported that the most dominant strategy was problem resolution. In such cases, platforms occasionally resolved and rarely ignored the issues. The class with the fewest number of respondents is characterised by the frequent adoption of the denial and victim-blaming strategies.

The profile of respondents in each class in terms of their sociodemographic characteristics, work patterns and the types of challenges is provided in Table 9. The first two columns present the overall frequency and percentage of respondents. The third, fourth and fifth columns provide the percentage of respondents for class 1, 2 and 3 respectively.

As a final step, we analysed variance in the job satisfaction scale between classes, which demonstrated that the between-group variance was significant (F(2, 507) = 40.52, p=0.00) and a class variable had a significant predictive power in relation to the dependent variable (B = 0.14, p=0.00). The highest value in the satisfaction variable was observed for class 2 (M = 3.58, SD = 1.21), and there was a slightly lower value for class 1 (M = 3.34, SD = 1.27). Class 3 had the lowest mean in the job satisfaction scale (M = 2.01, SD = 1.17).

6. Discussion

6.1. Challenges in platform-provider relationships

The analysis of the role of the factors attributed to organisational and digital aspects of relationship management made it possible to study the providers' perception of a digitally-mediated work environment. Such an approach was in line with the conceptualisation of the antecedents of the organisational climate (James et al., 2008; James and Jones, 1974). The application of the conceptual framework to the new context has produced new insights about the perception of the characteristics of a digitally-mediated work environment, which are not typical of traditional organisations. Also, the examined variables extended our knowledge about the providers' perspective on digital and organisational challenges when it comes to working in sharing economy companies (Ahsan, 2018; Davlembayeva and Papagiannidis, 2021; Garud, Kumaraswamy, & Roberts, 2020; Murillo et al., 2017; Rosenblat and Stark, 2016).

As far as the digital/technological side of management is concerned,

Table 8 Strategy classes.

Indicator	Class 1	Class 2	Class 3
	(N = 316)	(N = 122)	(N = 72)
	A combination of strategies	Problem resolution	Denial and victim blaming
Problem resolution	3.27	3.31	1.80
Denial	4.24	2.61	6.06
Victim blaming	3.89	1.81	5.53

the relationship between perceived algorithmic management and dissatisfaction with the company was not supported (H1). This finding contradicts the discourse in prior literature, suggesting the potential implications of algorithmic management for creating an unfavourable work environment (Ahsan, 2018; Basukie et al., 2020; Rosenblat and Stark, 2016). Researchers argued that digital systems are discriminatory and unfair towards providers (Basukie et al., 2020), which may lead to dissatisfaction (Kim et al., 2018; Villanueva-Flores et al., 2017) and emotional exhaustion (Piccoli and De Witte, 2015). In contrast, the finding of this study suggests that the automation of work-related processes, such as price setting, work assignment and feedback rating, does not weaken the positive evaluation of companies. Providers may have a rational view of algorithmic management as an enabler of ridesharing services and perceive information asymmetry as the underlying problem.

Contrary to the effect of algorithmic management, information asymmetry was found to have a positive relationship with dissatisfaction with the company (H2). Although algorithmic management and information asymmetry are interdependent processes in a technical sense, the two aspects of digital management are experienced differently by those who interact with digital systems. The effect of information asymmetry means that providers feel that they have access to a limited amount of data. Such a lack of access puts them in a disadvantaged position and undermines a positive evaluation of the company. The finding is consistent with prior literature arguing that information asymmetry has ethical implications for creating uncertainty about the outcomes of relations (Pavlou et al., 2007). It also concurs with evidence that the lack of transparency in outcome distribution results in dissatisfaction and impedes behaviour (Chiu et al., 2007; Piccoli and De Witte, 2015; Rubenstein et al., 2019).

The path between perceived control and dissatisfaction was found to be non-significant (H3). The non-confirmed role of control is inconsistent with prior literature postulating that this factor contributes to the ambiguity of working conditions and might create conflicts between providers and platforms (O'Regan and Choe, 2017). This is also in contrast with evidence that limiting providers' independence by imposing control threatens the financial stability of independent contractors (Guo et al., 2020; Leoni and Parker, 2019), well-being (Clausen et al., 2022; De Clercq and Brieger, 2022) and satisfaction with the job (Cooper and Sloan, 2018). A potential explanation is that control is perceived as a regulatory mechanism, standardising and streamlining work-related processes.

The analysis of the perceived factors rooted in the organisational aspect of relationship management showed that uncertain working conditions correlate with dissatisfaction with the company (H4). The significant role of uncertain working conditions agrees with the literature discussing the ethical implications of the sharing economy in terms of the ambiguity of providers' employment status, platform liabilities and policies (Etter et al., 2019; Guo et al., 2020). Ambiguity around working terms and conditions increases the likelihood of the gap between platforms' offerings and providers' expectations, which undermines job satisfaction (Guo et al., 2020; Leoni and Parker, 2019). The result also adds to evidence that uncertainty adversely affects company evaluation and organisational behaviour (James et al., 2008; O'Driscoll and Beehr, 1994).

Lastly, the significant role of relational opportunism analysis means that providers may feel that platforms encourage disproportionate rewards distribution and unfair treatment, which increases dissatisfaction with the company. This finding is consistent with research suggesting that platforms seek self-interest (H5) (Etter et al., 2019; Murillo et al., 2017). Self-interest has an adverse effect on the perception of the organisational climate (Bizzi, 2018; Rawwas et al., 1997). It undermines the evaluation of relations (Gassenheimer et al., 1996) and can create conflicts, resulting in the dissolution of those relations (Høgevold, Svensson, & Roberts-Lombard, 2020).

When it comes to the consequences of dissatisfaction with the

Table 9 Cluster profiles.

	Demographic data	Percent of respondents in Class 1 ($N=316$)	Percent of respondents in Class 2 $(N=122)$	Percent of respondents in Class 3 $(N = 72)$
		A combination of strategies	Problem resolution	Denial and victim blaming
	Male	51.6	54.9	50.0
Gender	Female	48.4	44.3	48.6
	Non-binary	0.0	0.8	1.4
	under 20	3.8	4.1	4.2
	20-29	63.9	71.3	66.7
	30-39	25.6	19.7	18.1
Age	40–49	5.1	3.3	6.9
	50-59	1.6	1.6	2.8
	Over 60	0.0	0.0	1.4
	Some high school or less	0.9	0.0	2.8
	High school graduate or equivalent	17.7	18.0	20.8
	Vocational/technical school (two year			
	program)	4.1	4.1	1.4
Education	Some college, but no degree	16.1	20.5	23.6
<u> </u>	College graduate (four year program)	24.4	23.8	27.8
	Some graduate school, but no degree	3.5	6.6	2.8
	Graduate degree (MSc, MBA, PhD, etc.)	30.7	22.1	18.1
	Professional degree (M.D., J.D., etc.)	2.5	4.9	2.8
	£0–£24,999	53.2	62.3	56.9
	£25,000-£49,999	28.8	29.5	30.6
Income	£50,000–£74,999	11.1	5.7	6.9
mcome	£75,000-£99,999	3.8	1.6	2.8
	More than £100,000	3.2	0.8	2.8
	1–20%	3.2 47.5	41.0	48.6
Income from	21–40%	28.8	25.4	19.4
ridesharing	41–60%	10.4	18.9	9.7
	61–80%	6.0	10.7	13.9
	81–100%	7.3	4.1	8.3
	Independent contractor (self-	64.9	73.0	70.8
Employment	employed)	0.7		40.4
1 .7	Employee	25.6	15.6	19.4
	I do not know	9.5	11.5	9.7
	<1 year	66.8	72.1	61.1
	1 year	18.7	15.6	20.8
	2 years	8.5	8.2	15.3
Tenure	3 years	3.8	4.1	2.8
	4 years	1.3	0.0	0.0
	5 years	0.3	0.0	0.0
	>5 years	0.6	0.0	0.0
	up to 10 h	37.0	41.8	26.4
	11–20 h	28.2	27.9	33.3
Work hours per week	21–30 h	19.9	19.7	11.1
	31–40 h	10.1	5.7	16.7
	>40 h	4.7	4.9	12.5
	Financial (underpayment)	51.9	52.5	69.4
	Organisational (management,	60.3	F0.0	92.2
Challer	communication)	69.3	59.8	83.3
Challenges	Relational (lack of concern,	F0.0	510	F0.6
	favouritism)	53.8	54.9	73.6
	Technical (App faults)	32.3	32.0	34.7

company, this was found to positively correlate with job insecurity (H6). The positive path supports findings in the organisational behaviour literature postulating that dissatisfied employees develop a feeling of insecurity (Glambek et al., 2014; Näswall et al., 2005). This result extends the knowledge about the consequences of dissatisfaction with sharing economy companies by suggesting that unrealised expectations about job outcomes trigger a feeling that the situation cannot be improved. Hence, existing problems are more likely to persist in the future.

6.2. Responses to challenges

Class analysis based on the providers' perception of platforms' proactive compliant, passive non-compliant and defensive non-compliant responses to negative work incidents resulted in three clusters of respondents. The respondents were clustered into those who reported a) a dominant problem resolution strategy employed by platforms, b) frequent use of denial and victim-blaming strategies, and c) a cluster with a combination of the three strategies (H7). These results present new evidence about the responses of platforms to pressure from institutions and stakeholders (Calo and Rosenblat, 2017; Garud, Kumaraswamy, & Roberts, 2020; Venkateswaran et al., 2021).

The membership of classes showed a significant impact on the variance in the job satisfaction level among clusters (H8). This finding complements literature on potential strategies to manage stakeholder relations (Clemens and Douglas, 2005; Oliver, 1991). Specifically, respondents who reported that platforms had predominantly used a problem resolution strategy to address providers' problems had the highest satisfaction value relative to the other clusters. This result is in line with prior research, suggesting that problem resolution positively affects an individual's behaviour and satisfaction (Cai and Chi, 2018). There was slightly lower satisfaction among providers exposed occasionally to all three types of strategy. The difference in satisfaction among these two clusters is explained by the frequency of the denial and

victim-blaming strategies. Providers in the cluster with dominant denial and victim-blaming responses reported a strong dissatisfaction with the job, which was lowest across the three clusters. That means that the indication of the platforms' refusal to accept challenges significantly undermines providers' job perception. This is consistent with the prior research about the adverse impact of non-compliant responses on satisfaction (Aquino et al., 2001).

Although the association of strategies with job satisfaction values is logical for all clusters, the descriptive data about respondents calls for further explanation. Compared with other clusters, respondents with the lowest satisfaction rate (the denial and victim-blaming cluster) tended to have worked a longer tenure, more hours per week and faced more financial, organisational and relational problems. In contrast, the respondents with the highest satisfaction rate (the problem resolution cluster) tended to have worked a shorter tenure, for fewer hours per week and experienced fewer financial, organisational and relational issues. Such an observation has two plausible explanations. First, due to longer engagement with platforms, providers are likely to face more challenges. Second, when providers invest more time and effort into the company, they tend to have higher expectations about how organisations should manage interactions, procedures and payments and how related problems should be resolved. In contrast, those providers working short-term are more flexible and might perceive themselves as independent without developing expectations about long-term work outcomes. Therefore, to some degree, the perception of firm responses and job satisfaction could be psychologically rooted and not only a result of the choice of strategy.

6.3. Theoretical contributions

The findings of this study make several contributions to the literature on stakeholder relations in the sharing economy and the organisational/ psychological climate. The contribution of the study to the literature on platform-provider relations is two-fold. Firstly, it extends the knowledge on providers' participation in peer-to-peer services, especially when it comes the challenges related to managing platform-provider relations (Ahsan, 2018; Davlembayeva and Papagiannidis, 2021; Garud, Kumaraswamy, & Roberts, 2020; Murillo et al., 2017; Rosenblat and Stark, 2016). This study sheds light on the digital and organisational aspects of relationship management, namely information asymmetry, relational opportunism and uncertain working conditions, which undermine the perception of the work environment. The evidence broadens the existing understanding of negative work experiences, which have been underexplored so far (Ahsan, 2018; Etter et al., 2019; Murillo et al., 2017). In addition, the lack of statistical support for the effect of algorithmic management unfairness on dissatisfaction led to a different explanation of the role of digital intermediation. While algorithmic management can bring unintended consequences (e.g. evaluation bias, unfairness) (Basukie et al., 2020; Rosenblat and Stark, 2016), it does not necessarily diminish the satisfaction with the environment that providers work in.

The second contribution of this study is to the research on platforms' responses to challenges in organisation-stakeholder relationships. The findings complement research which largely explored companies' responses to deal with institutional pressure and consumers' demands (Calo and Rosenblat, 2017; Garud, Kumaraswamy, & Roberts, 2020; Venkateswaran et al., 2021). By clustering sharing economy providers based on perceived platforms' responses, it was concluded that the produced clusters have significant variance in job satisfaction. In addition, the socio-demographic patterns among respondents of different clusters facilitate the understanding of the work-related situational conditions, which could impact providers' perceptions. Such evidence contributes to our knowledge of platform-provider relationship dynamics. While this topic has been untouched by empirical scrutiny to date, it has critical importance considering the growth of the sharing economy (Juniper Research, 2021).

The third contribution of this study is to the literature on

organisational behaviour. On the one hand, the evidence of the role of the perceived digital mediation and organisational management factors adds to the literature on the organisational and psychological climate (Glick, 1985; James et al., 2008; James and Jones, 1974; Jones and James, 1979; Li et al., 2020; Parker et al., 2003). The findings show that the perception of information asymmetry, uncertain working conditions and relational opportunism define the dissatisfaction with digitallymediated work environments. Such a context is unique, as the relationships between platforms and providers cannot be strictly defined as a partnership or employer-worker relations. Given that the perceptions of such environments have not been examined before, this evidence advances the understanding of the factors for creating a favourable climate for providers. On the other hand, the findings of the relationship of clusters based on strategies with job satisfaction complement the literature on stakeholder management in such environments (Clemens and Douglas, 2005; Oliver, 1991). By confirming strong job dissatisfaction among respondents in the cluster with a dominant problem-resolution strategy, this study confirms the strategic implications of active compliance responses in such a context.

6.4. Practical implications

The findings of the study offer several managerial implications. First, the results show a number of factors that better explain providers' dissatisfaction with platforms. The significant effect of information asymmetry shows that the work of sharing economy providers is still challenged by the lack of transparency when it comes to pricing policies, rules of conduct and working terms. To overcome the inequality of power between parties due to information asymmetry, platforms can invite providers and establish working groups, giving them an opportunity to discuss concerns and protect their rights to fair working conditions. The confirmed role of uncertain working conditions in undermining providers' satisfaction with the company suggests that the clarity of employment contract terms or/and the efficiency of communicating those terms to their providers needs to be improved. To avoid ambiguity in the interpretation of contractual conditions, companies may introduce inductions. Inductions can be followed up with regular updates to ensure the understanding of parties' responsibilities, expectations and obligations. Also, given the role of relational opportunism in dissatisfaction and potential disengagement of providers with companies, managers should consider a number of measures to improve belief in platform fairness, openness and honesty in relations with providers. To demonstrate openness, platforms can introduce a transparent booking system so that providers could arrange meetings to discuss any concerns that they might have. To strengthen beliefs that platforms adhere to fair principles, the performance indicators and evaluation outcomes need to be communicated systematically and clearly. Given that job dissatisfaction is largely attributed to denial and victim-blaming strategies, managers need to undertake measures to ensure that providers feel that their problems are taken seriously.

6.5. Limitations and future research avenues

The paper has a number of limitations that could be addressed by future research. First, the statistically non-significant result of the path analysis between algorithmic management unfairness and satisfaction with the company suggests that future studies need to look at the aspects of algorithmic management in platform-provider relations, which may be perceived differently. Also, researchers can examine the psychological factors and self-regulatory mechanisms which may result in the rationalisation of the (dis)advantages of certain system functions. Second, although the study interprets the disconfirmed effect of control on dissatisfaction, it may be worth testing the role of this factor in different sharing economy areas. In ridesharing, the importance of efficient demand-supply matching may outweigh the negative aspects of hyper control. Therefore, the centralisation of the governance of transactions

may be more beneficial for providers in ridesharing services compared to other industries. Third, this research represents the first step towards understanding perceived strategies to address providers' challenges in relation to satisfaction. Future research could develop knowledge on denial, problem resolution and victim-blaming strategies using a qualitative approach, and from the perspective of both platforms and providers. Such an approach would enable scholars to contrast the two perspectives and enrich the understanding of the motivations of companies to use different measures to deal with problems.

7. Conclusion

This study addressed two objectives guided by the lack of research on two fronts. Firstly, to provide evidence on the challenges in B2B relations in the sharing economy, it drew on prior literature to conceptualise the groups of factors relevant to the context of this research. It was found that dissatisfaction with the company is determined by information asymmetry, uncertain working conditions and relational opportunism. Dissatisfaction with the company, in turn, has a positive correlation with job insecurity. Secondly, the study fills the gap in the literature on stakeholder relationship management in the sharing economy. It explored the providers' perceptions of companies' responses to the challenges experienced and the associated level of job satisfaction. Three clusters of providers were identified. The first cluster of providers has a higher level of job satisfaction in conditions in which their problems are mostly resolved. The second and third clusters have the lowest levels of job satisfaction due to the perception that the problems are ignored or the blame for the problems is assigned to the providers.

Declaration of Competing Interest

None.

Data availability

Data will be made available on request.

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