Conceptualizing human resource management in the gig economy: Toward a platform ecosystem perspective

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Abstract

Purpose – Although it is transforming the meaning of employment for many people, little is known about the implications of the gig economy for human resource management (HRM) theory and practice. This paper conceptually explores the notion of HRM in the gig economy, where intermediary platform firms design and implement HRM activities while simultaneously trying to avoid the establishment of employment relationships with gig workers.

Design/methodology/approach – To conceptualize HRM in the gig economy, we offer a novel ecosystem perspective to develop propositions on the role and implementation of HRM activities in the gig economy.

Findings – We show that HRM activities in the gig economy are designed to govern platform ecosystems by aligning the multilateral exchanges of three key gig economy actors: gig workers, requesters, and intermediary platform firms, for ensuring value co-creation. We argue that the implementation of HRM activities in the gig economy is contingent on the involvement and activities of these gig economy actors. This means that they are not mere recipients of HRM but also actively engaged in, and needed for, the execution of HRM activities.

Originality/value – Our study contributes to research by proposing a theoretical framework for studying the design of HRM activities, and their implementation, in the gig economy. From this framework, we derive directions for future research on HRM in the gig economy.

Keywords: human resource management, gig economy, ecosystems, implementation, paradoxes

Paper type: conceptual paper

Introduction

In this conceptual paper we explore the implications of the gig economy for human resource management (HRM). Although an agreed-upon definition of the gig economy is lacking, the term is generally used to describe the economic system that consists of intermediary platform firms that connect requesters (i.e. organizations or consumers) with on-demand gig workers in industries such as transportation (e.g. Uber), cleaning (e.g. Helpling), household do-it-yourself (e.g. TaskRabbit), and programming (e.g. Clickworker). In so doing, the gig economy signals a growing trend to recast workers as self-employed contractors and their work for a firm or consumer as episodic rather than indeterminate (Aloisi, 2016; Kuhn, 2016; Jansen, 2017; Stanford, 2017). This is relevant for HRM theorists as "the self-employed represent a challenge to prevailing orthodoxies because they fall through regulatory and conceptual gaps created by systems based on the notion of traditional employment" (McKeown, 2016: 780).

More specifically, the rise of the gig economy eradicates a key touchstone of HRM research: the standard employment relationship between an employee and employer. Whereas HRM is traditionally conceptualized as the managerial activities for maintaining employment relationships (Tsui *et al.*, 1997; Lepak and Snell, 1999; Nishii and Wright, 2008), in the gig economy an identifiable employer-employee relationship within the confines of an organization is absent. Intermediary platform firms do not employ gig workers per se, a fact that has sparked legal challenges to the employment status of gig workers around the world. Numerous high-profile court cases in the US and Europe have elaborated and are working out the implications of this new type of employment, comprising organizations without employees, and workers without employers (see Appendix A for examples).

Despite the absence of an identifiable employment relationship, intermediary platform firms nevertheless design and implement a variety of HRM activities including: *performance management* with requesters appraising gig worker performance (Lee *et al.*, 2015), algorithms causing the *deactivation* (i.e. 'dismissal' in traditional HRM terms) of poor-performing gig workers (Rosenblat and Stark, 2016), and *job design* when workers are provided with proscribed ways to work and restricted levels of autonomy (Kuhn and Maleki, 2017). This apparent contradiction raises the question: how are we to conceptualize the notion of HRM in cases in which intermediary platform firms install HRM activities, while simultaneously seeking to avoid establishing an employment relationship with gig workers? The objective of this paper is to answer this question and explore the role and nature of HRM in the gig economy.

To realize this objective, we conceptualize HRM in the gig economy from an *ecosystem perspective*. Such a perspective accommodates the paradoxical nature of HRM without employment relationships because it goes beyond the dyadic employee-employer relationship by putting the focus on the *multilateral* exchange relationships among intermediary platform firms, gig workers, and requesters. By drawing on this perspective, we make three contributions. First, we redefine the role of HRM activities in the gig economy away from upholding employment relationships and towards the governance of platform ecosystems. More specifically, we propose that HRM activities serve to align the multilateral exchange relationships among intermediary platforms, gig workers, and requesters, and thus to ensure these actors co-create value. Second, we show that the implementation of HRM in the gig economy is contingent on these very platform ecosystem actors and the multilateral exchanges they engage in. Thus, we propose that gig workers, requesters, and intermediary platform firms are simultaneously initiators, implementers, and recipients of HRM activities, rather than taking just one of these three roles. Finally, we offer researchers a holistic framework and a set of future research directions for studying HRM activities in the gig economy, as insights on the nature of HRM are urgently needed.

The remainder of this article is organized as follows. We start with a discussion of platform-enabled gig work as a key economic exchange in the gig economy, which takes place outside the confines of the standard employment relationship. This is followed by a reflection on how the role of intermediary platform firms causes tensions in real-life HRM practice through the simultaneous presence of HRM activities yet absence of employment relationships. We show how this requires a reconceptualization of HRM in the gig economy to accommodate this paradox and discuss relevant practices and their outcomes. To achieve this conceptual switch, we present our platform ecosystem perspective on HRM activities in the gig economy. We discuss the implications of an ecosystem perspective for HRM scholarship and, finally, present directions for future research on HRM in the gig economy and platform ecosystems.

Platform-enabled gig work

The key economic exchange that is taking place in the gig economy is platform-enabled gig work. Platform-enabled gig work can generally be referred to as the performance of fixed-term activities by individuals (i.e. gig workers) who perform a service on-demand for a firm or consumer, without actually being employed or having an employment relationship with an organization (Kuhn, 2016; Jansen, 2017; Stanford, 2017). Instead, gig workers are independent and obtain work assignments through intermediary platform firms[1] – such as Uber, Deliveroo or Upwork – which act as matchmakers between gig workers and those that request their services (Aguinis and Lawal, 2013;

[1] Gig work may also involve assignments (or 'gigs') which are assigned without the help of intermediary (platform) firms. However, due to the proliferation of intermediary platform firms and the HRM activities they design and seek to implement, this paper exclusively focuses on platform-enabled gig work and its implications for human resource management.

Aloisi, 2016; Kuhn, 2016). As an economic system, the gig economy can thus be viewed as consisting of intermediary platform firms, gig workers, and requesters, which jointly bring about the request, management, and execution of platform-enabled gig work. There are several features that characterize platform-enabled gig work (Stanford, 2017):

1) Sourcing and performance of fixed-term tasks (or 'gigs')
2) Absence of an employment relationship
3) Intermediation by an intermediary platform firm

Sourcing and performance of fixed-term activities ('gigs')

The first characteristic of platform-enabled gig work is that it involves the sourcing of tasks by a requester (which can be either a firm or an individual consumer), which are relatively short-lived and performed by independent workers who move from one assignment (or 'gig') to another. Researchers have relied on different concepts to describe the notion of independent workers who execute such outsourced tasks. These concepts include crowdsourcing (Nakatsu *et al.*, 2014), elancing (Aguinis and Lawal, 2013), independent contracting (Kuhn and Maleki, 2017), "work on demand via app" (Aloisi, 2016), and interim/freelance project work (Keegan *et al.*, 2018). For instance, crowdsourcing reflects the idea that tasks, traditionally performed by a designated employee, are outsourced to an undefined group of people (i.e. the crowd) in the form of an open call via an online platform (Nakatsu *et al.*, 2014; Boons *et al.*, 2015). In a similar vein, organizations that make use of elancing rely on an online marketplace (e.g. Amazon Mechanical Turk) where employers look for individuals – anywhere in the world – who can sign up for some type of short-term task to be done online, such as programming, translating texts, or processing data.

eLance gig workers can be distinguished from those involved in "work on demand via app" (Aloisi, 2016) where outsourced tasks in the real rather than the virtual world, involving such activities as driving, delivering food, or performing household chores, are done by workers who move on to the next assignment/task once the last one is completed. Whereas elancing and "work on demand via app" may involve the sourcing of micro-tasks that are highly structured (e.g. delivering meals or translating a piece of text), other types of gig work concern short-lived assignments which are less structured and more creative in nature, such as idea generation, idea evaluation, or problem-solving activities (Nakatsu *et al.*, 2014; Boons *et al.*, 2015). For example, the platform Crowdskills seeks to match graduates with local businesses in London to complete tasks in areas such as photography and graphic design. Although gig workers often work in isolation from others on micro-tasks (e.g. an Uber taxi driver or an Amazon Mechanical Turker), they may also execute activities that are more long term in nature and in collaboration with other workers (Nakatsu *et al.*, 2014).

Absence of an employment relationship

Second, platform-enabled gig work is conducted and organized in the absence of a standard employment relationship between an employer and employee (Stanford, 2017). Instead, gig workers are freelancers (Jansen, 2017) or independent contractors (Kuhn and Maleki, 2017). As such, they do not have an employment relationship within the confines of an organization. Instead, gig workers are independent and self-employed. This makes them different from other types of flexible labor who are employed by an organization, albeit working on fixed-term assignments. For example, we can thinking of temporary workers hired through temp/employment agencies which supply these workers to a client organization (Lepak and Snell, 1999; Bonet *et al.*, 2013) or workers who are on a temporary contract and therefore employed by an organization for a restricted period of time. Gig workers, by contrast, are a specific category of contingent worker who are ‘hired’ on demand, meaning that the outsourced tasks they perform are immediately required by a requester (i.e. a firm or individual consumer). There is no guarantee of ongoing engagement with the requester after the finite assignment is completed (Aloisi, 2016; Stanford, 2017). While in reality the parties may work together again in the future, the finite nature of the gig and the absence of a standard employment relationship are key aspects of this type of work. This is also the most controversial aspect of gig work from an HRM perspective, a fact underpinned by the ongoing legal challenges to gig work and platform firms like Deliveroo and Uber in several jurisdictions around the world (see Appendix A for some examples).

Intermediation by platform firms

A final and important characteristic of platform-enabled gig work is the notion that the (out)sourcing of gig-based activities is enabled by intermediary platform firms such as Uber, Deliveroo, or Amazon Mechanical Turk, which act as brokers between gig workers and requesters. The key purpose of intermediary platform firms is thus to match the supply and demand for labor by connecting gig workers and requesters who are remote from each another, yet wish to transact. Accordingly, and in line with the absence of an employment relationship, gig workers are not employed by the intermediary platform firm that matches them with a requester. Instead, gig workers are treated as customers or end-users of the intermediary platform firm – similar to requesters – with gig workers and/or requesters paying the intermediary a fee for matching labor supply and demand. The sourcing of gig work therefore involves a triadic relationship among gig workers, requesters and intermediary platform firms, with the raison d'etre of the last being intermediation between the two former actors.

To enact their role, intermediary platform firms rely on the internet and related technologies to install online platforms on which gig workers and requesters can transact (Moeller *et al.*, 2013). Besides matching labor supply and demand by means of algorithms that assign gig workers to requestors or allow requesters to recruit and select gig workers, these intermediary platform firms also enable a range of other activities. Here, one can think of pay administration where fees are automatically paid and administered (Kuhn and Maleki, 2017), performance management by means of online rating schemes which enable requesters to evaluate gig worker performance (Rosenblat *et al.*, 2017), or coordination and control if gig worker behavior can be remotely monitored (Lee *et al.*, 2015). This makes intermediary platform firms different from other labor market intermediaries that are restricted in the HRM responsibilities they adopt and activities they engage in – albeit bringing together labor supply and demand (see Table 1 for these differences). For example, so-called 'Information Providers' like LinkedIn, online job boards, and outplacement agencies, whose involvement ends once those who supply and demand labor get to know about the existence of the other (Bonet *et al.*, 2013). Intermediary platform firms also have more durable involvement than 'Matchmakers' (e.g. contingency search firms, placement agencies, and retained service firms) which withdraw from the triadic relationship once supply and demand are matched (Aguinis and Lawal, 2013; Bonet *et al.*, 2013). Although intermediary platform firms may look similar to what Bonet *et al.* (2013) refer to as 'Administrators' (e.g. temp agencies and professional employer organizations), both of whom remain part of the triadic relationship throughout the match and install instruments such as evaluation, control, and remuneration to manage worker efforts, they nevertheless differ since 'Administrators' actually employ workers, whereas intermediary platform firms do not.

Insert Table 1 about here

Taken together, these characteristics coalesce in describing platform-enabled gig work as:

> *Fixed-term activities which requesters (i.e. organizations or individual consumers) outsource on-demand to a self-employed gig worker with the help of an intermediary platform firm which installs an online platform that matches and manages gig workers and requestors, yet without actually employing gig workers and instituting an employment relationship with them*.

The paradox of intermediary platform firms: HR management *without* employment

To manage gig worker efforts, intermediary platform firms install a range of HRM activities, including: *workforce planning* to match labor supply and demand (Chen *et al.*, 2015); *performance management* with gig workers' behavior being assessed and thus controlled by means of online rating systems (Rosenblat *et al.*, 2017); *compensation and benefits* to remunerate gig worker efforts and induce desired behaviors (Lieman, 2018); and *job design* which provides gig workers with the possibility to work whenever they want (Kuhn, 2016; Stanford, 2017). From an HRM perspective, this is surprising. In the HRM literature, HRM activities are conceptualized as the means to manage and sustain the employment relationship between employee and employer. For instance, by drawing on social exchange theory (Blau, 1964) and the inducements-contributions model (March and Simon, 1958), HRM activities such as compensation and benefits, performance feedback, and training are traditionally viewed as inducements provided by the employer in the hope they are reciprocated by employees in terms of displaying desired behaviors and working towards organizational goals (Tsui *et al.*, 1997; Lepak and Snell, 1999). Moreover, following signaling theory, researchers have conceptualized HRM activities as messages on how employees are expected to behave coming from the employer, and thus defining the nature of the employment relationship the latter wishes to establish (Bowen and Ostroff, 2004).

Furthermore, current thinking in HRM research stresses that the process through which HRM activities are implemented to uphold the employment relationship follows a linear path from intended HRM to actual HRM to perceived HRM (Nishii and Wright, 2008; Guest and Bos-Nehles, 2012). The HR triad (Jackson *et al.*, 2009) is central to this thinking and used to denote which actors exercise primary responsibility in each phase: HR professionals who design 'intended' HRM practices/messages, line managers who implement 'actual' HRM practices/messages, and employees who experience 'perceived' HRM practices/messages (Nishii and Wright, 2008; Renkema *et al.*, 2017). It is through the actions and experiences of HR professionals, line managers, and employees that HRM activities are traditionally viewed as molding and upholding the employment relationship between an employee and employer (Nishii and Wright, 2008).

Applying current thinking on HRM to the context of platform-enabled gig work, it is apparent that the particularities regarding gig work change the conceptual meaning of HRM as intermediary platform firms institute HRM activities, yet without actually employing gig workers. At the same time, these platform firms have a reputation for withholding HRM inducements (e.g. training, job security, and secondary benefits like paid sick leave and pension planning) as this runs counter to their business model and arms them against legal charges that gig workers do (or should) have an employment relationship (Kessler, 2015; McKeown, 2016). In a report written for Eurofound on Ireland, for example, Dobbins (2009) holds that where workers are classified as self-employed or freelancers, they do not have the same access to protection, employment rights, and social welfare provisions and do not enjoy the same employment status rights as workers classified as employees. This presents a paradox, as intermediary platform firms simultaneously disavow that they are employers of gig workers or responsible for work-related benefits and rights, while they do exercise considerable control over gig workers in terms of time and place of work, pace of work, quality of work, and behavior while carrying out work by means of selected HRM instruments. Precisely this tension came to the fore in a number of recent court cases (see Appendix A for some examples).

It is because of these legal challenges that intermediary platform firms 'outsource' HRM activities to requesters, unions, and third-party providers, rather than involving the 'traditional' HR triad actors, like HR professionals and line managers. For instance, instead of training poorly performing taxi drivers themselves, Uber delegates this responsibility to a labor union – the Independent Drivers Guild – which charges $70 to individual Uber drivers for this training (Taft, 2018). Furthermore, employees pro-actively instigate new/additional HRM practices themselves as institutionalized HRM practices may be largely absent in the new world of the gig economy (Lee *et al.*, 2015; Rosenblat and Stark, 2016). In moving further away from a standard employment relationship, intermediary platform firms do not hire HR professionals who devise 'intended' HR policies for gig workers. Instead, policies for hiring and performance management of gig workers are mainly developed by marketing specialists and computer scientists (Chen *et al.*, 2015; Benoit *et al.*, 2017). Platform firms do not have line managers who supervise and coordinate the efforts of gig workers. Instead, 'actual' HRM practices are implemented by customers and through algorithms (Rosenblat, 2018). As an example, the workforce planning of gig workers "on demand work via apps" such as Uber, Deliveroo, and TaskRabbit is almost fully automated, with algorithms deciding how many workers are needed, assigning 'gigs' to workers, and determining pay rates (Chen *et al.*, 2015; Rosenblat and Stark, 2016; Kuhn and Maleki, 2017).

Taken together, these examples show that HRM in the gig economy is not geared towards maintaining a relationship between an employee and an employer. At the same time, HRM activities do occur in the gig economy, albeit in the absence of this standard employment relationship. These HRM activities are implemented by a range of actors, but not by the HR triad actors who traditionally bear HRM responsibilities such as HR professionals who design 'intended' HRM activities and line managers who execute 'actual' HRM activities. These apparent contradictions beg the question of how we can conceptualize HRM in the gig economy where forging, and maintaining, an employment relationship is out of the question. In the following section, we answer this question by conceptualizing HRM in the gig economy from an ecosystem perspective.

Towards an ecosystem perspective on HRM in the gig economy

An ecosystem perspective is highly relevant for HRM research in the gig economy because it accommodates the paradoxical nature of gig work where gig workers are freelancers, yet controlled by means of HRM activities which are designed, implemented, and/or outsourced by intermediary platform firms. An ecosystem refers to a group of interacting, yet semi-autonomous entities that depend on each other's activities and therefore are somewhat hierarchically controlled (Wareham *et al.*, 2014; Jacobides *et al.*, 2018). This definition of ecosystems has several implications for research into the relatively new platform-enabled gig work phenomenon. First, an ecosystem is made up of a set of actors that interact. In line with the triadic relationship that currently characterizes platform-enabled gig work, we argue that these 'entities' include *at least* gig workers, requesters, and the intermediary platform firm (Breidbach and Brodie, 2017). That said, the possibility of more actors in platform ecosystems must be considered given developments in mainstream HRM practice associated with multi-actor (Bos-Nehles and Meijerink, 2018) or polyadic (Keegan and Den Hartog, 2018) HRM systems.

Second, the three entities (or actors) make up an ecosystem because they interact through supplying labor (i.e., gig workers), demanding labor (i.e., requesters), or matching labor supply and demand (i.e., intermediary platform firm) – while remaining semi-autonomous entities. This semi-autonomous status materializes as gig work currently takes place outside the confines of an employment relationship, meaning that each entity can opt out whenever it wants as there are limited legal requirements that bind gig workers, requesters, and the intermediary platform firm to each other (Stanford, 2017).

Finally, and most importantly, the exchanges among gig workers, requesters, and intermediary platform firms are characterized by interdependence and multilaterality, such that value can only be created for each ecosystem actor when all actors continue transacting with one another (Adner, 2017). Put differently, an ecosystem cannot be broken down into an aggregation of bilateral exchanges. All interactions are critical, as the ecosystem malfunctions when one group of actors stops transacting with the other actors. These multilateral interdependencies can be explained by the example of the Uber ecosystem. When Uber drivers withdraw from the Uber ecosystem (i.e., stop using the online platform to provide taxi rides), there is limited value created for passengers as they cannot be transported. The contrary also holds: when passengers stop hailing taxi rides via the Uber platform, Uber drivers will not reap any benefits as there are no earnings to be made. Ultimately, the value to intermediary platform firms also depends on the ongoing contribution of gig workers and requesters: when Uber drivers and passengers move away from the Uber ecosystem, it means there are limited ongoing transactions among these actors from which Uber can seek rents. Therefore, ecosystem actors are said to be complementary: the activities of one ecosystem actor do not function and provide limited value without the actions of the other actors (Wareham *et al.*, 2014; Adner, 2017; Breidbach and Brodie, 2017).

The interdependent nature of the multilateral exchanges among ecosystem actors presents the need to control and coordinate their efforts (Adner, 2017). To make this happen, platform firms need to adopt a 'leadership role' to ensure coordination and direction among the ecosystem actors (Gawer and Cusumano, 2002; Breidbach and Brodie, 2017). This makes platform ecosystems semi-regulated marketplaces where semi-autonomous actors either supply or demand labor under the direction of the intermediary platform firm (Wareham *et al.*, 2014). Surprisingly, however, according to Jacobides *et al.* (2018), very few studies have looked at the instruments used by intermediary platform firms to enact their leadership role and, thus, to control the efforts of all ecosystem actors involved. In our view, HRM activities have an important role to play in platform ecosystems as they are valuable instruments for controlling and coordinating the efforts of human actors (Jackson *et al.*, 2014). As we explain below, selected HRM activities help to control and incentivize the actions of gig workers, requesters, and the intermediary platform firm (and thus uphold their multilateral exchanges). We therefore propose that HRM in the gig economy can be understood as the means for managing not just the efforts of workers, but of all ecosystem actors involved (see Figure 1).

Insert Figure 1 about here

HRM for ensuring ongoing multilateral exchanges and value co-creation in platform ecosystems

Following the notion of multilateral interdependence, we propose that HRM activities in the gig economy control and uphold the exchanges among gig workers, requesters, and the intermediary platform firm by ensuring multilateral value for all three platform ecosystem actors. Here, multilateral value creation refers to a situation in which all actors within an ecosystem co-create value (Lusch and Nambisan, 2015; Vargo and Lusch, 2004). This means that they both receive value from and provide value to one another, as an important condition for ongoing exchanges (Breidbach and Brodie, 2017). Below we discuss several HRM activities and that all platform ecosystem actors are subject to them to ensure that their needs and interests are served by upholding ongoing multilateral exchanges.

Workforce planning. Although workforce planning is traditionally defined as a process geared towards meeting the firm's future need for human capital (Lepak and Gowan, 2010), in the gig economy, it reflects the activities to match supply and demand for labor. In fact, workforce planning is their raison d'être for intermediary platform firms, as brokers between gig workers and requesters. Intermediary platform firms aim to scale up and create network effects by increasing the number of both requesters and gig workers that make use of the intermediary services (Gawer and Cusumano, 2002). They do so by a variety of means: surge prices, marketing campaigns, temporary price reductions for requesters and/or higher compensation for gig workers in areas where the intermediary starts operating (Chen *et al.*, 2015; Lee *et al.*, 2015; Lieman, 2018). Seen from an ecosystem perspective, this creates multilateral value benefitting all ecosystem actors involved. Gig workers benefit from the presence of more requesters and thus potentially more gigs leading to a higher income, while requesters benefit from an abundant supply of gig workers and thus better possibilities to outsource work on demand. In the end, this also benefits the intermediary platform as network effects create more exchanges between gig workers and requesters from which the platform can capture value (i.e. a fee) (Gawer and Cusumano, 2002) and which also enable growth and, in some cases, market dominance.

Recruitment and selection. As the creation of network effects is instrumental to intermediary platforms, they seek to recruit as many gig workers and requesters as possible. Seen from an ecosystem perspective, it is important that the recruitment of both actors runs in parallel to avoid mismatches in the supply and demand of labor. Labor supply-demand mismatches are detrimental to a platform ecosystem as this may cause gig workers or requesters to leave the platform when too little labor demand or too little supply of labor, respectively, is occurring in the platform ecosystem. The need to maximize and match the labor supply and demand does not imply that intermediary platform firms always grant everybody access to the platform ecosystem. Instead, in some cases, a careful selection of gig workers and/or requesters is essential to guarantee that multilateral value is created for all ecosystem actors involved. For instance, the elancing platform Clickworker.com selects gig workers on the basis of their qualifications and offers them more complex tasks once their qualifications increase (Nakatsu *et al.*, 2014). This is different for gig workers of Uber Eats or Deliveroo who are hired without any form of selection and are not granted more challenging tasks (as these are simply not available). At the same time, these food delivery platforms do carefully select requesters to their ecosystem – i.e. the restaurants who seek gig workers to deliver their meals – to ensure they can offer a wide variety of different cuisines to individual consumers. In fact, Deliveroo recently selected several top-star chefs and supported them to open up take-away restaurants to diversify the portfolio of menus and improve the quality of meals provided to its consumers (Lieman, 2018).

Training and development. Empirical research shows that gig worker's training and development are seen as their own responsibility. Rousseau and Wade-Benzoni (1994) hold that freelancers do not enjoy the same levels of investment in their knowledge and skills as traditional employees. Furthermore, they usually need to fund their own personal development to remain current in terms of skills and knowledge (Peel and Inkson, 2004). Although intermediary platform firms allegedly refrain from offering training and development services to gig workers, this is not necessarily always the case. As an example, Uber drivers are offered instructions on how to improve their passenger ratings and earnings (Rosenblat and Stark, 2016), while online intermediaries may offer pre-employment training to interim project managers (McKeown, 2016). In New York City, Uber does require poor-performing taxi drivers to attend training sessions – which are outsourced to a labor union – to avoid the situation that these gig workers offer poor services to requesters which could stimulate requesters to leave the Uber ecosystem (Taft, 2018). The provision of training should not come as a surprise, as the most likely alternative option – expelling gig workers from the platform – reduces the supply of labor which stifles multilateral exchanges in ecosystems that have a high demand for labor (such as crowded New York City). Besides training gig workers, intermediary platform firms also train and develop requesters. For instance, meal delivery platforms such as Deliveroo and Uber Eats instruct their requesters – the restaurants – on the working of the algorithm to ensure that meals are ready on time so gig workers do not waste time waiting at a restaurant. Seen from an ecosystem perspective, this is important as wasting gig workers' time destroys value for them, because they have less time to deliver extra meals and thus generate a lower income.

Performance management. In most cases, performance management in the gig economy is achieved by the setting of performance levels and using requester feedback to rate gig worker performance. Uber, Lyft, and Deliveroo, for example, use a rating system which involves soliciting feedback from requesters on a star rating scale. Whenever gig workers collaborate with ‘regular’ employees’ (e.g. freelance cooks who find work via the Temper app to take on gigs at restaurants), performance management is based on the client’s perceptions of the performance of gig workers in terms of collaboration with other team members and joint completion of projects (Coe *et al.*, 2010). These performance management activities enable ongoing multilateral exchanges in at least two ways. First, the star ratings often add up to reflect the gig workers’ online reputation, which locks the gig worker into the ecosystem as gig workers often cannot ‘take’ their online reputation to another platform ecosystem (Lee *et al.*, 2015). Second, performance ratings should ensure that gig workers create value for requesters because these ratings are used to allocate future ‘gigs’ or as a basis for refusal of access to the platform ecosystem (Rosenblat *et al.*, 2017). Refusal of access to the platform could be likened to dismissal in HRM terms, as platforms such as Uber could be seen “as making termination decisions when the requester feedback reveals that drivers are not meeting the performance levels set by the firms" (Aloisi, 2016: 674). Gig workers on the other hand also evaluate requesters. In the case of Uber, for example, drivers are asked to share their knowledge of individual requesters’ behaviors via an online app. Uber has recently applied for a patent to use artificial intelligence (AI) technology to assess when a requester has consumed excessive levels of alcohol by detecting the likelihood they are drunk through typos, and how a requester holds their phone (Forbes, 2018). Intermediary platform firms can use this information alongside gig worker evaluations of requester behaviors to expel difficult requesters from the platform, which ultimately benefits gig workers by creating safer working conditions.

Compensation and benefits. In terms of compensation, requesters compensate for the service provided by gig workers and for the effort spent by the intermediary to match supply and demand for labor. The compensation for gig worker performance is indirect, however, since requesters pay a fee to the intermediary platform firm, of which a part is captured by the intermediary, with the remainder being transferred to the gig worker (Breidbach and Brodie, 2017). In most cases, gig worker compensation equates to short-term, economic inducements in return for a specific contribution by the gig worker (Chen *et al.*, 2015). As an example, workers on Amazon Mechanical Turk are sometimes awarded not more than a few cents for performing micro-tasks such as tagging photos or entering data (Kuhn and Maleki, 2017). To ensure that gig workers live up to the requesters' expectations, intermediary platform firms may grant requesters the possibility to hold back payment from a gig worker when they feel gig worker performance is below par (i.e., so-called escrow services (Pavlou and Gefen, 2004)). At the same time, seen from an ecosystem perspective, it is important that gig workers find the level of compensation beneficial and appropriate, to ensure that both parties remain engaged in the multilateral exchanges in the ecosystem (Breidbach and Brodie, 2017). The platform Upwork therefore offers payment protection for gig workers, providing they meet a set of conditions. Finally, to further commit gig workers to the ecosystem and ensure a steady supply of labor to requesters, intermediary platform firms outsource the provision of secondary benefits to fourth-party providers. This involves, for instance, the possibility for gig workers to outsource their tax and salary administration to specialized companies that do this for them (McKeown, 2016). Intermediary firms may also ask requesters to provide gig workers with secondary benefits. For instance, in the Deliveroo ecosystems, restaurants provide coupons and discounts to gig workers in return for their active contribution to the ecosystem. Finally, algorithmic control is increasingly premised on psychological insights and tactics to incentivize particular behaviors. Uber uses a variety of in-app notifications to encourage drivers in their choice of locations and duration of work. To avoid the appearance of a direct supervisory relationship with their drivers, Uber words these expectations as helpful hints ("Your next rider is going to be awesome"), not orders (Rosenblat, 2018).

Research Propositions

As the examples above show, not only are HRM activities present in the gig economy, they are novel in the sense that they are not exclusively aimed at managing and controlling gig worker performance. Instead, all ecosystem actors are subject – to varying degrees – to HRM activities. These HRM activities aim to ensure that all ecosystem actors provide value to one another, which ultimately creates a viable platform ecosystem where all actors remain involved and continue to engage in multilateral exchanges. Put differently, in the gig economy, HRM activities do not serve to manage workplaces but are designed to govern semi-regulated marketplaces that manifest as platform ecosystems. On this basis, we propose the following:

> Proposition 1: HRM activities in the gig economy are designed to control and, ultimately, uphold the multilateral exchanges among gig workers, requesters, and intermediary platform firms, such that all actors are subject to HRM activities.

The implementation of HRM activities in the gig economy

If we are to fully understand the role of HRM activities in the gig economy, it is important to understand that their implementation as the outcomes of HRM activities – the ongoing multilateral exchanges essential for platform ecosystems – is not only contingent on their design, but also on the way they are executed (Bowen and Ostroff, 2004; Meijerink, 2014; Van Mierlo *et al.*, in press). While in regular organizations the design and implementation of HRM activities are the primary tasks of HR professionals and line managers, respectively (Guest and Bos-Nehles, 2012; Bos-Nehles and Meijerink, 2018), in the gig economy this responsibility is shared among gig workers, requesters, and the intermediary platform firm. As discussed below, we foresee two types of implementation processes by these actors that underpin HRM activities in the gig economy.

First, we expect that if HRM activities are implemented as *intended*, that is, in line with the aims set by the platform firm, this will mean the practices uphold the platform ecosystem by ensuring that the multilateral exchanges create value for the ecosystem actors involved. For gig workers, this would involve the following key issues: (1) engaging in performance appraisal to ensure that requesters who show inappropriate behavior are expelled from the platform ecosystem; (2) recruiting new gig workers (through referral schemes) to increase labor supply in the ecosystem; (3) training peers to ensure requesters are offered high-quality services; (4) responding in real-time to algorithmic incentives to put in hours and fulfil requests so that people keep using the platform for services.

We expect that requesters, on the other hand, contribute to the implementation of intended HRM activities by: (1) evaluating gig workers to ensure poor-performing ones are identified; (2) reinforcing the workforce planning activities of intermediary platform firms by continuing to demand labor via the online labor platform; (3) compensating gig workers through the mobile application to ensure that the intermediary platform can capture a part of the fee paid by the requester (the latter is not always implied as requesters may seek to bypass the platform by directly accessing a gig worker).

Finally, the intermediary platform firm supports the implementation of intended HRM activities by: (1) providing requesters and gig workers with the means to share concerns they may have about gig worker performance (by developing online ratings schemes); (2) offering incentives (e.g., including the possibility to offer tips / gratuities via the online platform); (3) fostering learning and development by allowing gig workers and requesters to provide developmental feedback to each other via the app.

Second, gig workers and requesters may also implement HRM activities that are *counterproductive* to the effective functioning of the platform ecosystem. More specifically, we expect that the interactions among platform ecosystem actors also instigate HRM processes and exchanges which give rise to the implementation of HRM instruments (existing or new) that do not add to the creation of multilateral value for all ecosystem actors involved. For example, this may occur when gig workers and requesters are expected to mutually performance-appraise each other, but they do not. Gig workers and requesters may engage in strategic behaviors when such evaluations are (perceived to be) used by the intermediary platform firm to match supply and demand. For instance, Uber is suspected of matching taxi drivers and passengers who have high performance rating averages, and vice versa (Chen *et al.*, 2015; Lee *et al.*, 2015; Rosenblat *et al.*, 2017). Under such conditions, it is likely that gig workers and requesters will agree to give each other high ratings in the hope they will be matched with 'well-performing' gig workers / requesters in the near future. Research has shown that gig workers instruct (or 'train' in traditional HRM terms) requesters on the working of the appraisal schemes to solicit evaluations which might not be reflective of their actual performance (Rosenblat and Stark, 2016). Lastly, although the workforce planning and recruitment activities of intermediary platforms may help to uphold them, they might also induce workforce planning / recruitment activities (possibly undesirable ones) on the part of gig workers and/or requesters. For instance, gig workers might use the online platform to recruit requesters to generate side business from which the platform does not capture any value or that risks annoying the requester (e.g. Uber drivers that also offer interpretation / translation services which they seek to sell to passengers in their cars). Requesters may decide – once linked to a gig worker through the workforce management activities of the intermediary – to continue working with a gig worker outside of the ecosystem. This may occur with online platforms where gig workers and requesters transact on a recurring basis. For instance, requesters who make use of the Helpling platform to find a cleaner to clean their house may bypass the intermediary by directly hiring the services of these gig workers.

Taken together, although the actions of, and exchanges among, gig workers and requesters may help intermediary platform firms to have HRM activities implemented as intended, these HRM activities may also give rise to implementation and exchange processes that run counter to the goals of those intended HRM activities. On this basis, we propose the following:

> Proposition 2: The implementation of HRM activities results from the very multilateral exchanges among platform ecosystem actors they are intended to control, such that effectiveness (or the lack thereof) of HRM activities in governing the platform ecosystem follows from indeterminacy of the actions of gig workers, requesters, and the intermediary platform firm who are simultaneously initiators, implementers, and recipients of HRM activities.

Questions and directions for future research on HRM in the gig economy

In this final section, we outline a series of directions that can guide future research on HRM in the gig economy based on an ecosystem perspective. In line with our framework and propositions, we propose research on (1) the role of HRM activities in upholding the multilateral exchanges among gig workers, requesters, and intermediary platform firms (Proposition 1) and (2) the implementation of HRM activities through these multilateral exchanges (Proposition 2).

HRM for ensuring ongoing multilateral exchanges in platform ecosystems

In the gig economy, HRM activities help to sustain multilateral exchanges by ensuring that all actors co-create multilateral value for each other. To some degree, however, the creation of value is a zero-sum game when it comes to capturing value from requesters, that is, the money that requesters are willing to pay. Here, both gig workers and online platforms seek to capture value in terms of generating an income versus generating rent, respectively. At the same time, as the man-in-the-middle, the platform firm is in a more powerful position to determine prices, set gig worker compensation, and thus influence how much rent it can capture itself (Chen *et al.*, 2015; Lee *et al.*, 2015). The question therefore arises as to whether and under which conditions HRM activities installed by intermediary platform firms serve the creation of value for *all actors* versus the creation of value primarily for the intermediary firm. These firms may capture a disproportionate amount of value, and their activities may disadvantage, or exploit, other ecosystem actors. In our view, this depends on at least three conditions. First, the life cycle stage of the platform ecosystem may help predict the role of HRM in value creation processes. When a platform firm initially establishes the ecosystem, HRM activities are more likely to favor gig workers and requesters in order to create network effects whereby many gig workers and requesters want to join and stay. Anecdotal evidence suggests that creating network effects is very costly, with platform firms initially making big losses to ensure value is created for those offering supply and demand (Lieman, 2018). In later stages, however, when network effects lead to one platform outcompeting rival firms and locking in gig workers and requesters, HRM activities may be directed towards allowing the dominant platform firm to capture disproportionate amounts of value to make up for the initial losses and start making profits. Such trends may explain the changes increasingly reported in the media about the way intermediary platform firms adapt their terms and conditions for paying gig workers (Hatch, 2016; Ryan, 2016; Lieman, 2018).

Second, the design of HRM activities may depend on the availability of gig workers. Here, it is more likely that HRM activities serve the creation of value for gig workers when workers are in limited supply or possess rare / scarce skills (Lepak and Snell, 1999).

Finally, a hybridization of HRM activities can be expected, meaning that some HRM activities are geared towards creating value for gig workers and / or requesters, while other HRM activities enable the platform firm to capture value. For instance, while secondary benefits may benefit gig workers with coupons and discounts being provided for their active contribution to the ecosystem, surge price systems may primarily benefit the platform. The latter happens with Uber's surge prices, which change too rapidly (sometimes by the second) for gig workers to act upon them to boost their income (Lee *et al.*, 2015), and with Uber capturing a larger portion of the surge prices paid for by requesters (Chen *et al.*, 2015). Such actions may lead gig workers to leave the platform – in particular in its initial stages when network effects are not strong – and start working (more frequently) for a competing (intermediary platform) firm. Accordingly, we see great value in future studies that examine how the HRM activities of an intermediary platform firm are dependent on those of rival platform firms, the life cycle stage the platform ecosystem is in, the size of network effects, gig worker availability, and the need to differentiate HRM activities to benefit different ecosystem actors.

Another fruitful avenue for future research is to explore whether different HRM activities (or bundles thereof) are used to uphold different types of ecosystems. Building on the notion that platform ecosystems are semi-regulated marketplaces, we argue that they differ in whether they are liberal or coordinated markets (Hall and Soskice, 2001). It is likely that some platform ecosystems are more *liberal*, with the intermediary firm governing the platform ecosystem solely on the basis of economic principles (e.g. surge prices, limited interference of societal stakeholders, arm's-length relationship with gig workers), while others are more *coordinated* in the sense that the platform applies more non-market approaches to govern the ecosystem (e.g., allowing gig workers to unionize, investing in generic skills of gig workers, participation of gig workers in decision-making, allowing gig workers more control over the work process). The same intermediary platform firm may set up different types of ecosystems, depending on the country in which it operates. For instance, the Uber ecosystem seems to be more liberal in the US as there are limited barriers preventing gig workers from entering the platform, making supply and demand less regulated. In the Netherlands, the Uber ecosystem is less liberal as public policies only allow those with a taxi driver's license to work via the Uber platform. Furthermore, although most of the well-known, so-called 'unicorn' intermediary platforms (e.g., Uber, Lyft, Grab, Deliveroo) seek to uphold liberal ecosystems, there are examples of coordinated ecosystems such as platform-cooperatives (e.g. Up & Go and Loconomics) where gig workers equally share in the incomes generated, decision-making is more democratic, and a short-term return on investment is not the ultimate goal. Provided that ecosystem actors interact differently and may seek to create different types of value (e.g., economic versus social), it is likely that different HRM activities will be used to manage ecosystems oriented towards different values. On this basis, future studies could explore whether liberal platform ecosystems are controlled by means of HRM activities such as surge prices, escrow services, algorithmic task allocation, and investment in platform-specific skills, and whether in coordinated platform ecosystems, HRM activities such as investment in generic gig worker skills, employee ownership plans, and gig worker representation occur more frequently.

Finally, it is worthwhile exploring the mechanisms through which HRM activities coordinate the multilateral exchanges among gig workers and requesters. We see at least two ways in which HRM activities of platform firms may affect the functioning of their platform ecosystem: by creating lock-in effects or committing ecosystem actors. Platform firms may install HRM activities to lock-in gig workers and/or requesters to ensure they continue taking part in multilateral exchanges. Examples of HRM activities that have a potential lock-in effect are performance appraisal when gig workers and requesters cannot take their online reputation to another platform (Kuhn and Maleki, 2017) and workforce management when strict algorithmic task allocation requires gig workers to develop, what we call, platform-specific skills needed to learn how to create the most economic value out of joining an online platform.

On the other hand, HRM activities may also foster continued multilateral exchanges by committing gig workers and requesters to the platform ecosystem by seeking durable relationships. HRM activities that likely encourage ecosystem actors to commit include compensation and workforce management when more profitable tasks are allocated to more senior gig workers or more qualified gig workers are referred to requesters who have been with the platform ecosystem for a long time. For future studies, it is worthwhile exploring which HRM activities platform firms use to lock-in and/or commit ecosystem actors, and examine the explanatory power of lock-in and commitment-mediating mechanisms in explaining the relationship between HRM and long-term platform ecosystem effectiveness.

The implementation of HRM activities in the gig economy and platform ecosystems

In the gig economy, various HRM activities are implemented by gig workers and requesters. Since these ecosystem actors' primary task is to supply or demand labor, they might not see implementing HRM activities as a responsibility that comes naturally to them. This raises the question of under what conditions would requesters, gig workers, and intermediary firms be motivated to implement HRM activities? This is particularly interesting when it comes to performance management. Why would requesters be willing to evaluate the performance of gig workers when they only make use of their services for a short period or are assigned different gig workers every time they outsource a gig-based activity? In our view, requesters may still be willing to evaluate gig worker performance. This may be linked to the idea of these activities being seen as a means of reciprocating gig worker efforts; to benefit other requesters by reporting poorly performing gig workers who need to be expelled from the platform; to reciprocate the efforts of the community of requesters that helped to create a safe ecosystem; or to receive a better service when making use of a gig worker's service in the future. In line with our ecosystem perspective, the desire of requesters to evaluate gig worker performance likely depends on the characteristics of the platform firm (e.g., whether it allows requesters to select a gig worker themselves, allows repeated exchanges between the gig worker and requester, or uses appraisal data to match requesters and gig workers); the characteristics of the gig worker (e.g., the quality of service s/he provides, whether s/he asks the requester to provide feedback, or the scarcity of his/her skills); or the characteristics of the requesters (i.e., whether it is an individual consumer or organization, his/her tendency to reciprocate others' efforts, or his/her beliefs of why requester appraisal is requested). We see great value in future studies that explore the various reasons that platform ecosystem actors engage in performance appraisal activities and whether this is impacted by platform, requester, and gig worker characteristics (and the interplay among them).

Furthermore, requesters may decide to implement HRM activities which they are not *expected* to implement, but nevertheless do so because the intermediary platform firm refrains from doing so. In their desire to avoid establishing an employment relationship, platform firms often do not offer training possibilities to gig workers, withhold selected secondary benefits, and provide limited instructions for work performance. Not only does this raise the question of how intermediary platform firms seek to balance the tension between controlling gig worker efforts while simultaneously refraining from creating the appearance of an employment relationship, it also presents the question of who implements HRM activities which are not implemented by the platform firm? Requesters may decide to compensate for the limited involvement of platform firms in HRM by adopting HRM responsibilities which are traditionally executed by an employer. In fact, research shows that requesters do indeed provide secondary benefits or instructions to develop the knowledge and skills of gig workers (Lieman, 2018). Accordingly, future research may explore under which conditions requesters start to adopt more employer-like HRM responsibilities.

Finally, there are possibilities that gig workers get to collaborate with other workers who do have an employment relationship. It is plausible that firms that did most of their hiring traditionally a decade ago may now be experimenting with hybrid forms of hiring which co-mingle traditional employment systems and the assignment of work to self-employed contractors, freelancers, and project workers. We already see these examples being put into practice, with e.g. restaurants hiring freelance cooks via platforms like Temper, which collaborate with workers employed by those very restaurants. A recent initiative by PwC is another example of traditional workers and gig workers co-mingling in new ways (Tobin, 2018). This intermingling of gig-based and traditional work arrangements raises questions about the role and implementation of HRM activities within the requester’s organization. For instance, what is the impact of such hybrid systems on HRM specialists? What kinds of additional skills and competences do HRM practitioners require to operate in such hybrid employment ecosystems where traditional notions of fairness, obligation, and exchange are challenged by combinations of employed and non-employed personnel populating temporary projects? How do ‘regular’ workers react to their possible or actual inclusion in platform ecosystems?

Conclusion

In this paper, we conceptually explored the notion of HRM in the gig economy, as intermediary platform firms are trying to avoid establishing an employment relationship with gig workers, yet at the same time do design and seek to implement a variety of HRM activities. By drawing on the ecosystem concept, we developed propositions which predict that HRM activities in the gig economy are designed to govern platform ecosystems by aligning the multilateral activities of gig workers, requesters, and intermediary platform firms, which in turn give rise to the implementation of these very HRM activities. On the basis of our platform ecosystem perspective on HRM in the gig economy, we proposed directions for future research. In doing so, we hope that future research will continue to explore the multilateral exchanges among gig workers, requesters, and intermediary platform firms and how these shape and are shaped by HRM activities in the gig economy.

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FIGURE 1:

FRAMEWORK ON HRM AND PLATFORM ECOSYSTEMS IN THE GIG ECONOMY

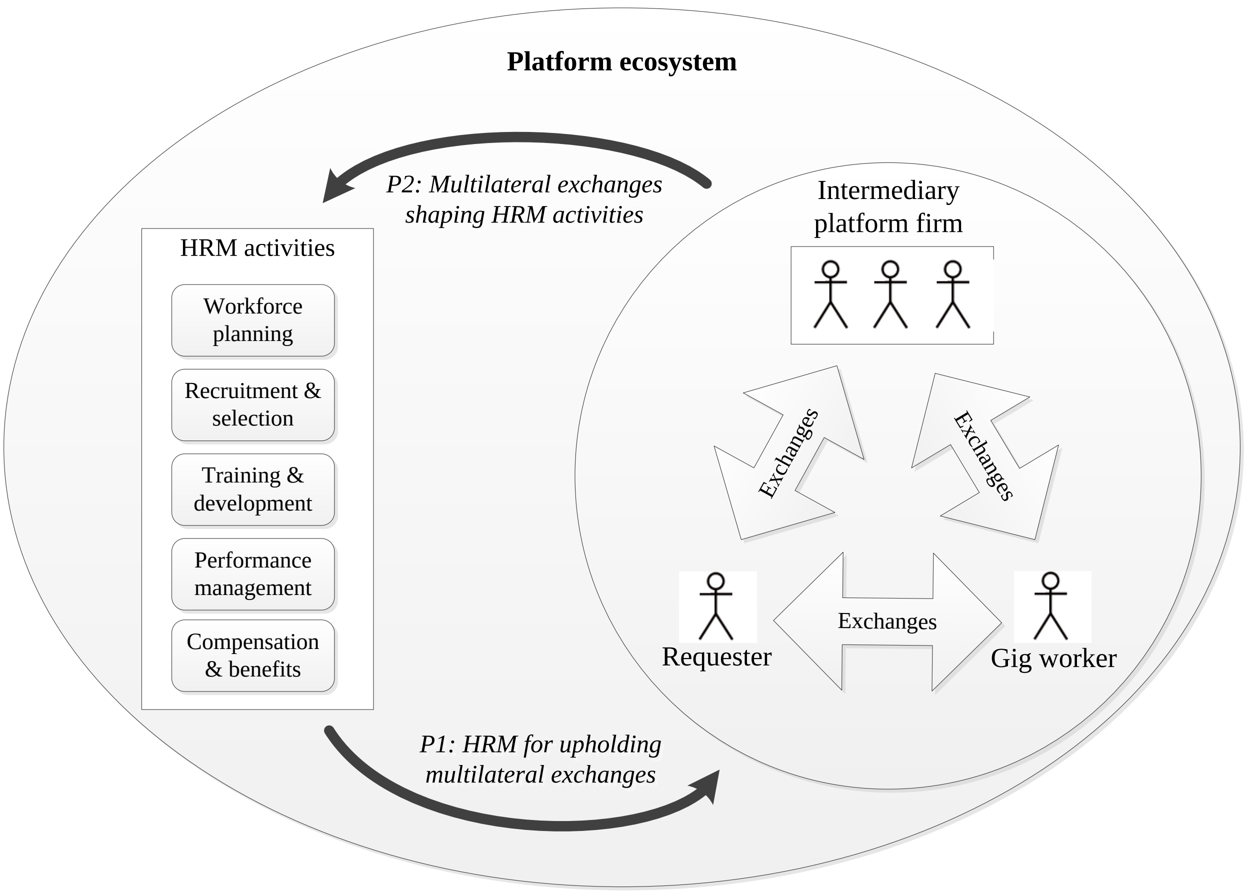

TABLE 1:

DISTINGUISHING INTERMEDIARY PLATFORM FIRMS FROM OTHER LABOR MARKET INTERMEDIARIES

	Information Providers	**Matchmakers**	**Administrators**	**Intermediary Platform Firms**
Examples	• Online job boards • Social Media	• Search firms • Headhunters	• Temp agencies	• Online labor platform firms • Platform cooperatives
Employment relationship with intermediary	Absent	Absent	Present	Absent
Level of HRM responsibilities of intermediary	Low	Medium	High	High
HRM activities designed and/or implemented by intermediary	• Recruitment	• Recruitment • Selection	• Recruitment • Selection • (Development) • Appraisal • Compensation	• Recruitment • Selection • (Development) • Appraisal • Compensation • Job design • Workforce planning

APPENDIX A:

EXAMPLES OF LEGAL CHALLENGES TO THE ‘GIG’ EMPLOYMENT STATUS

Case	Date and Source	Details
Aslam v Uber Case 2202551/2015 London Central employment tribunal, November 2016	New Law Journal 4 November 2016	Judge held claimants are “workers” and entitled to paid annual leave, sick pay, a maximum 48 hour working week, the national minimum wage and the protection of whistleblowing legislation. The claimants sought compensation for failure to pay the minimum wage and failure to provide paid leave. Two claimants complained of detrimental treatment on “whistle-blowing” grounds.
Uber BV & Ors v Aslam & Ors [2017] UKEAT 0056_17_1011.	New Law Journal 10 November 2017	The Employment Appeal Tribunal upheld the employment tribunal’s earlier ruling that the drivers are ‘workers’ as defined by the Employment Rights Act 1996, in Uber BV & Ors v Aslam & Ors. Delivering her judgment, Judge Eady QC, sitting alone, concluded: ‘I do not consider it was wrong to hold that a driver would be a worker engaged on working time when in the territory, with the app switched on, and ready and willing to accept trips ("on-duty", to use Uber's short-hand).
Pimlico Plumbers Ltd and another (Appellants) v Smith	Supreme Court UK Judgements	Supreme court rejected an appeal by Pimlico Plumbers to the finding that Mr Smith, by virtue of the extensive controls over his performance, and requirement for him to provide services in person, had the status of a worker under several pieces of legislation and not as self-employed.

(Respondent) [2018] UK SC	(https://www.supremecourt.uk/cases/docs/uksc-2017-0053-judgment.pdf)	
Intersindical Valenciana vs Deliveroo	Reuters 4 June 2018	A Spanish court has ruled that a Deliveroo rider is an employee rather than a self-employed contractor. As the rider in question was a Deliveroo employee, the court found that his dismissal from the company was inappropriate and ordered him to be either rehired or compensated.