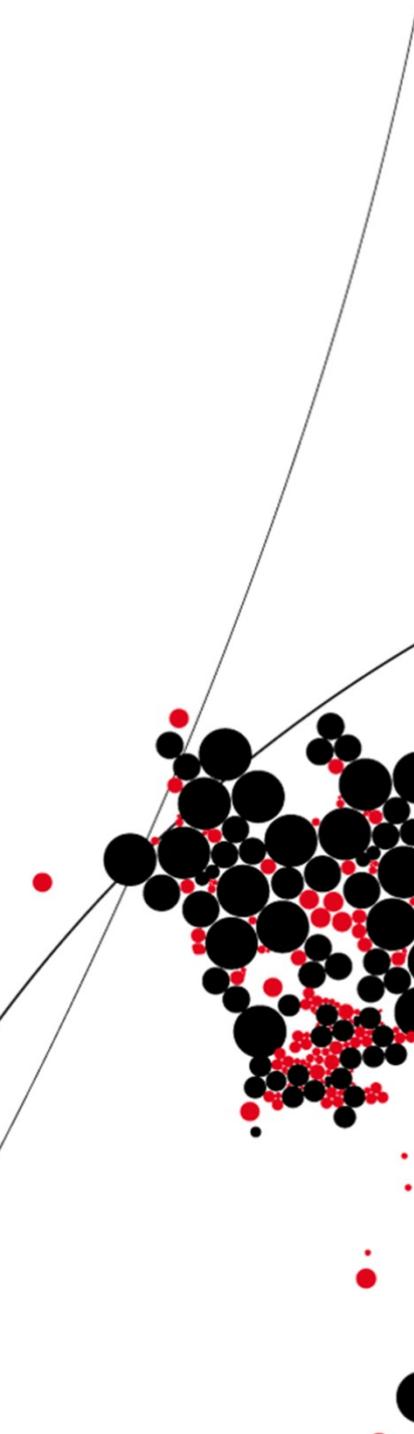




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HRM systems and implementation within crowdsourcing platform ecosystem



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I- Abstract

The objective of this study is to determine what HR practices are used and who is executing them, especially for crowd workers. For this study purpose an explorative case study is used to gather data from meal delivering crowdsourcing platforms, namely Uber and Deliveroo. Data was gathered in form of interviews, participative observations and document analysis. The crowd sourcing ecosystem consists of four actors in this case study namely, crowd workers, requestors, restaurants and the crowdsourcing platform. With that being said the trait proposed by Breidbach and Brodie (2017) consisting of the requestor, crowd worker and the crowd sourcing platform had to be extended to another member of the crowd sourcing ecosystem. In addition, the AMO (ability, motivation and opportunity) system, cannot be applied to the crowdsourcing ecosystem to identify HR practices. As within the crowdsourcing ecosystem HR practices exist for a different purpose than intended by the AMO system. This study is unique in a sense that it proposes a new HRM system for crowd sourcing. This new system makes it possible to identify HR practices within the crowdsourcing ecosystem to its full extent and purpose. All in all, an HRM system does exist within the crowdsourcing ecosystem, which varies from the AMO system and all four actors of the ecosystem provide HR practices to one another. Crowd workers receive HR practices from all three members and have a high degree of flexibility. A reason for it, is assumed to be the legal constrain of the country, as crowd workers are not employed by the crowd sourcing platform but work as freelancers.

II- Table of Contents

I- Abstract.....	2
II- Table of Contents	3
1. Introduction.....	4
2. Theoretical background	6
2.1 Definition of crowdsourcing	6
2.2 Ecosystem and actors involved.....	9
2.3 HR practices.....	11
2.4 Current study.....	15
3. Methodology	16
3.1 Research design	17
3.2 Data collection.....	18
3.3 Analysis	21
4. Results	22
5. Discussion.....	37
5.1 Theoretical implications	42
5.2 Practical implications.....	44
5.3 Limitations and Future research.....	46
6. Conclusion	48
III- References	51
IV- Appendices	54
Appendix A	54
Appendix B.....	57
Appendix C	59

1. Introduction

As described by Vargo and Lusch (2004) the shift from tangible goods to intangible goods has evolved with time and gained a high importance in the market. By intangible goods are meant the services that are exchanged for the benefit of the receiver. Vargo and Lusch (2004) have stated that all goods can provide a service and are a mean for the exchange of something. Yet the intangible exchange of service is emerging and becoming a big part of the economy so as the one of the crowdsourcing ecosystems. Crowdsourcing platforms are also offering intangible services in a form of value-creation to an undefined group for an exchange of for example monetary compensation or other form of reward. Jeff Howe was the first one to describe “crowdsourcing”, despite these crowdsourcing platforms existing for years with success. He defined this phenomenon as *a traditionally performed job by a designated agent* - in other words, an employee - *who is outsourced for this job to an undefined, large group in some form of an open call* (Howe, 2006, p.1-4). Crowdsourcing, through its different forms, has become a convenient tools for organizations with varying purposes, such as contest driven crowdsource, crowd sharing applications, crowdfunding platforms and customer driven innovations (Nakatsu, Grossman and Iacovou, 2014). The focus in this paper is on the discussion of crowdsourcing as an established phenomenon, created by a platform firm that links crowd workers and petitioners of those services in context of human resource management (HRM). An example of such a crowdsource platform is Uber. Interestingly, although crowdsourcing does not employ *crowd workers* - as they are independent contractors (Howe, 2008) - they still depend on them, and thus need to coordinate and manage their efforts, as crowdsourcing platforms are unable to succeed when its *crowd workers* leave or offer poor services to the public (Boons et al., 2015). To optimize these efforts and avoid such fates, HR practices such as evaluation and attraction are in place. So far, we know little about the use of

these HR practices for managing crowd workers as a systematic description on how crowd workers are attracted, managed and retained is missing. Furthermore, line managers and supervisors are traditionally responsible for implementing such practices, which is a contrasting situation to modern *crowd workers*, who lack a supervisor, as they are often self-employed. It is important to know who is executing HR practices and what HR practices are used to manage crowd source workers, because at this point of time no study has been conducted that shows what HR practices are used for crowd workers. It is known that HR practices are used to manage employees and increase their performance in a traditional setting, yet it is not known if the same applies to crowdsourcing. It is of interest to the researcher to find out, what HR practices are used for crowd workers. In a traditional setting, the first-line managers are executing HR practices upon the workforce, something that in crowdsourcing is unknown and seemingly executed by an algorithm, yet not clear by whom those HR practices are implemented (Lee, Kusbit, Metsky and Dabbish, 2015). Therefore, we will conduct this research in order to deepen the knowledge of the subject on which HR practices are used for crowd workers and who is implementing them. In order to address the theoretical implication, it is of interest to know about the different HRM practices used and the actors that are involved in implementing those HR practices. The practical implication provides insight to understand if the implementation results in an outcome regarding the crowdsourcing effort. Therefore, the main research question is: *Which HR practices are used to manage crowdsource workers and who is implementing and executing them?*

For the purpose of a further study, it is of interest to find out if the used HR practices an impact on the crowd worker and in addition what kind of impact. As with this study becomes clear what HR practices are used and who is executing them, the further step would be to see what impact it has. So, the existing crowdsourcing platforms can re-evaluate their HRM system and make some adjustments if needed.

2. Theoretical background

Before describing HRM in the crowdsourcing context, we must first clarify the crowdsourcing ecosystem. In order to achieve the goals of this paper, various aspects need to be outlined such as the definition of crowdsourcing. A review of the literature, as presented here shows that prior studies have used and defined crowdsourcing differently. This chapter presents the core literature used in this paper. Each section results in a relevant aspect of the core literature, which allows to propose the model at the end of the chapter to conduct an analysis.

2.1 Definition of crowdsourcing

Crowdsourcing involves at least three actors: (1) the crowdsourcing platform which creates an environment of exchange of service; (2) the crowd worker, who is the designated agent that exchanges a service to; (3) the requestor, who is outsourcing that task to an undefined group of crowd workers. All actors of crowdsourcing as a phenomenon are present, which explains the interaction of outsourcing in the form of an open call. Consequently, it means that the crowd worker and requestor do not pick who is performing or receiving the service, while the platform firm provides the exchange. For example, Howe (2006, p. 1-4) defined crowdsourcing as *'the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call'*. Furthermore, Afuah et al. (2012) have a similar definition of crowdsourcing to Howe (2006, p. 1-4), which is *'the act of outsourcing a task to a "crowd", rather than to a designated agent (an organization, informal or formal team, or individual), in the form of an open call'*. This definition also has all three actors of crowdsourcing involved, and - like Howe's -the act itself is named the *"form of an open call"*, which means that it is not known who, exactly, will perform the requested task. Cusumano (2014) and Cannon et al. (2014) are the ones who emphasize the

platform firm as part of the crowdsource definition and call it “*the web platforms*” and “*online platform*”, which is also an essential factor of crowdsourcing. Their definitions are more specific to the crowdsourcing platform and centre its activities as a provider of exchange for services as the main actor of crowdsourcing. Belk (2013) mentioned in his definition also the compensation as part of the definition as “*for a fee or other compensation*” which means that the crowd worker also receives something back for the performance of the requested task. Yet the crowdsourcing platform is completely missing in his definition so as the crowd worker, is not mentioned therefore does not appear to have importance for the research intention of Belk (2014).

Table 1

Definitions related to crowdsourcing

<i>Author(s)</i>	<i>Definition</i>	<i>Key communalities</i>
Howe, J (2006, p. 1-4)	He defined crowdsourcing as ‘the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call’	<ul style="list-style-type: none"> • Designated agent • Outsourcing • Undefined generally large group of people • Form of an open call
Cusumano (2014)	Web platforms that bring together individuals who have underutilized assets with people who would like to rent those assets short-term	<ul style="list-style-type: none"> • Web platform • People who would like to rent assets • Individuals who have underutilized assets
Belk (2014)	People coordinating the acquisition and distribution of a resource for a fee or other compensation	<ul style="list-style-type: none"> • People coordinating the acquisition • Distribution of a resource

Cannon and Summers (2014)	A business model where peers can offer and purchase goods and services from each other through an online platform [...] sharing economy firms are true intermediaries, providing a platform for consumers rather than providing services directly	<ul style="list-style-type: none"> • Peers can offer and purchase goods and services • crowdsourcing platform, sharing economy firms • Providing a platform for consumers
Afuah and Tucci (2012)	Crowdsourcing has been defined as ‘the act of outsourcing a task to a “crowd”, rather than to a designated agent (an organization, informal or formal team, or individual), in the form of an open call’	<ul style="list-style-type: none"> • The act of outsourcing a task • To a crowd • Form of an open call

All the definitions emphasize the three actors, which are involved in crowdsourcing so as describe interactions between and will be determined at the end of this section. Even though each definition is different, there are some commonalities. Those commonalities are the ‘open call’ as mentioned by Howe (2006, p.1-4), Afuah and Tucci (2012) also mention in their definition ‘ the form of an open call’. Another commonality is mentioned by Howe (2006, p.1-4) ‘undefined generally large group of people’ , so as Afuah and Tucci (2012) say ‘to a crowd’. Cusumano (2014) mentions the ‘Web platform’ also Cannon and Summers (2014) talk about ‘crowdsourcing platform’. In addition Howe (2006, p1-4) talks about “outsourcing”; Afuah and Tucci (2012) also mention ‘outsourcing a task’. The use of those commonalities is to formulate a definition for the purpose of this study. The formulation is as following: *‘Crowdsourcing can be defined as an act of outsourcing a task by a requestor in form of an open call to a crowd (undefined large group of people, the crowd worker), through a*

crowdsourcing platform. 'After creating a definition of crowdsourcing also the crowdsourcing ecosystem in terms of the main actors and their interactions is of importance. Now is known what crowdsourcing is, yet the actors involved in such eco-system and their exchange of service is unclear. The ecosystem can be explained as the environment of the actors involved and their exchange of service to one another (Breidbach & Brodie, 2017). For the present study, the main actors of crowdsourcing are crowd workers, requesters and the crowdsourcing platform, those will be used throughout this paper as a reference to crowdsourcing.

2.2 Ecosystem and actors involved

This section describes three actors and their exchange of service in an ecosystem. Breidbach and Brodie (2017) developed a figure in which the ecosystem is explained including the three actors involved. The three actors determined in the previous section are used also in this section to avoid confusion, namely crowd workers, requesters and the crowdsourcing platform. Breidbach and Brodie (2017) based their framework on Vargo and Lusch's (2004) findings. Vargo and Lusch (2004) found that each actor, of a system provides a service. Vargo and Lusch (2004) defined service as 'the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself.'. In order to understand the exchange of service within the ecosystem, the function of each actor is explained. The cycle of the ecosystem can only be ongoing, if the three actors are committed. As each actor is proving a service to one another. The crowd worker gains the opportunity to display the ability and availability for the task and the requestor gets liberty to outsource a task virtually. The implications that are faced here are on one hand that the platform depends on the crowd workers in order to exist and be able to provide services, while the crowd workers are not employed by the crowdsource platform in a traditional way (Boons, Stam, & Barkema, 2015).

The crowdsource platform's survival is depending on one side on its crowd workers, as those perform a task outsourced by the requestor. On the other side the number of customers, who are willing to outsource a task and all this interaction are administered by the crowdsourcing platform. It is of interest to know how to perform the maintenance of crowdsourcing, as a crowdsource platform is dependent on the crowd workers to exist yet does not employ them directly (De Stefano, 2015). The same situation can be applied for requestors, as they need to be satisfied with the service enough to return, so as new users, there should be a significant attraction. As such, if there are no requestors, there is no exchange of service and the crowdsourcing platform does not benefit of its existence. So even though crowdsourcing does not function in a traditional setting, it must have a continues exchange of satisfactory service to maintain the crowdsourcing platform and the actors involved. As the crowdsourcing platform is depending on their crowd workers and needs them to be committed to the platform to exist. It is of importance to examine what services are used to manage crowdsource workers. Going back to the definition of service by Vargo and Lusch (2004) is clear that the exchange of service includes HRM practices, which are exchanged by all three actors. As in the traditional setting the line managers manage employees and implement HRM systems, while in the crowdsourcing ecosystem HRM practices are executed by all three members of the ecosystem (Meijerink & Keegan, 2019). Therefore, in the further section will be looked for evidence of HRM practices used in crowdsourcing within the existing literature. The reason for using the study of Breidbach and Brodie (2017) is to explain the exchange of service between the three actors of the ecosystem, their dependency and the use of potential HRM systems within the ecosystem. The study of Breidbach and Brodie (2017) is used as a ground base of the model for the current study in the following section.

2.3 HR practices

HR practices are used in organizations to manage employees and make sure that the goal of the organization is met (Armstrong, 2007, p.8). Empirical studies have shown that HRM systems are composed of multiple HR activities which are organized in HR policies depending on the goals the company is focusing on (Jiang et al., 2012; Lepak, Liao, Chung, & Harden, 2006). HR practices are most effective when used in combinations of a so-called bundle and not isolated alone (Lepak et al., 2006). Strategic HRM focuses on HRM systems as a whole rather than on individual HR activities because the practices are able to perform their functions properly only when they are applied collectively (Jiang et al., 2012; Lepak et al., 2006). In order, to achieve the desired effect multiple HR practices have to be implemented in form of an HRM system (Verburg, Hartog, & Koopman, 2007). Using individual activities in isolation could contribute to some organizational goals but the maximum effect can be reached only by using several HR practices simultaneously (Jiang et al., 2012; Lepak et al., 2006). Those HR practices need to have a reasonable internal fit and influence employees abilities, motivation, and opportunity (AMO) , which can be summed up as the employees performance (Becker & Huselid, 1998; Delery & Shaw, 2001; Guest, 1997). In order to determine existence of HR practices in crowdsourcing and understand which practices are executed, three HR policy domains, namely - the knowledge, skills and abilities domain; the motivation and effort domain; and the opportunities and contribute domain are used. Jiang et al. (2012) stated that those three domains named above, can be viewed as an function of employee performance in a traditional setting. A reason for using those three domains in this research is to detect evidence of an HRM system used in the crowdsource ecosystem. As already mentioned in the previous chapter crowd workers are an essential part of crowdsourcing it is of interest to see if the AMO system is also used in the crowdsourcing ecosystem.

The first domain is focused on finding and attracting employees with high potential. Possible HR policies are recruitment, selection and training. The second domain includes HR practices that contribute to employees' further development, like trainings-, motivation- and feedback practices. For instance, compensation, appraisal and incentives are indicators of the motivation domain. The last domain includes policies such as job design and involvement practices. So, employees have the opportunity to show and expand their knowledge and skills (Jiang et al., 2012). The aim of this section is to find evidence of existing HR practices within crowdsourcing. By finding potential HR practices assumptions can be made on which actor of the ecosystem can execute them see Table 2 below.

Table 2

Potential HR practices used within crowdsourcing

<i>Abilities</i>	<i>Motivation</i>	<i>Opportunity</i>
Selection> “provides safety checks for drivers so as to maintain a secure experience for passengers” (Breidbach & Brodie, 2017)	Compensation> “As an incentive, winners earn some form of reward from the seeker” (Dissanayake et al., 2015)	Job design> “work with individuals outside geographical and organizational boundaries” (Dissanayake et al., 2015)
Recruitment>” Entry and exit of actors into a service ecosystem is unconstrained, since all actors remain independent agents that can take on multiple roles” (Breidbach & Brodie, 2017)	Compensation > “platform businesses like Uber or Airbnb facilitate resource access, and promise monetary rewards for those willing to engage in their context” (Breidbach & Brodie, 2017)	Job design> “platform providers offer an interface that allows interaction between seekers and solvers” (Dissanayake et al., 2015)
Selection>” Secondly, because anyone can become a member of a crowdsourcing platform” (Boons et al., 2015)	Compensation> “Digital and social technologies facilitate the emergence of new forms of digital labour, such as irregular unpaid forms of labour heavily relying on hedonic gratifications, or remunerated crowd work systems that rely on the distribution of work through open calls rather than assignment”	Job design> “in the case of Uber, the firm developed, and now maintains, the mobile application and associated engagement platform that connects economic actors as drivers and passengers of the transportation service (Breidbach & Brodie, 2017)

	(Fieseler, Bucher, & Hoffmann, 2017)	
	Compensation> “Crowdsourcing, in which requestors pay and award the successful completion of the task by the crowd. (Vukovic, 2009)	Autonomy> “For example, an individual can join the Uber service ecosystem at any time; engage with or disengage from the platform and other actors, and can even take on the roles of both driver and passenger or, in certain instances, even be a driver, passenger, and employee of the firm” (Breidbach & Brodie, 2017)
	Performance management>” crowdsourcing platforms do not have clearly articulated identities and ideologies, members may have greater difficulty to derive meaning from their membership” (Boons et al., 2015)	Involvement> “Engagement platforms, therefore, not only help to share information amongst multiple interdependent actors, but facilitate a better understanding of a dynamic and rapidly changing ecosystem; for example, by alerting Uber drivers to passengers requesting transportation, the expected time of arrival, or fare estimates” (Breidbach & Brodie, 2017)
	Performance management, feedback>” Online (crowdsourcing) platforms can employ a wide range of mechanisms to communicate such cues to their members, but in practice most platform organizations make use of a combination of newsletters, blogs, media repositories, and personal feedback. Newsletters, blogs, and media repositories are important ways in which crowdsourcing platforms can communicate organization-level status information to their members” (Bruns, 2013)	Autonomy> “a distinct group of actors offers value propositions associated with the engagement platform to other economic actors (Uber drivers offer their cars and time to satisfy the transportation needs of prospective passengers)” (Breidbach & Brodie, 2017)
	Performance management>” Crowdsourcing platforms also make use of different types of individual reputation and feedback mechanisms, such as rankings, overviews of activity status, and public and private feedback on members’ contributions” (Bruns, 2013)	Job design>” Above all, it might offer the potential for upward mobility in that it enables participation in better paid, safer, and more comfortable labour conditions (a) for workers in remote or socially disadvantaged Locations” (Fieseler et al., 2017)

In the first policy domain “*Abilities*”, the HR practices recruitment and selection are examined. Breidbach and Brodie (2017) and Boons et al. (2015) stated in general anyone can become member of a crowdsourcing platform. Some abilities need to be present like e.g. a taxi driver of Uber needs to have proof and ability to drive safely (Breidbach and Brodie, 2017). This mention example corresponds to a selection practice within crowdsourcing and seems to be simplistic and makes it easy for someone to be selection as candidate for a crowdsource platform. The recruitment practice is described as simple, so crowd workers can actually become part of the crowdsourcing website and leave any time (Breidbach and Brodie, 2017). The second policy domain “*Motivation*” provides evidence of compensation, so in other words crowd workers receive monetary compensation or another form of incentive for the provided service (Breidbach and Brodie, 2017; Dissanayake et al., 2015; Vukovic, 2009). Performance management is communicated in a form of personal raking, which is articulated through newsletter, blogs or activity status within the platform and indicates a personal ranking of a crowd worker within the crowdsource platform (Bruns, 2013). The third policy domain “*Opportunity*” includes job design, autonomy and involvement. Looking at the job design, the crowdsourcing platform creates an interface where the requestor and crowd worker can communicate and exchange the service while the platform creates the job design (Breidbach and Brodie, 2017; Dissanayake et al., 2015). Autonomy is present in the example if Uber as the crowd worker can sign off and sign back whenever the he/she is available (Breidbach and Brodie, 2017). In addition Uber alerts drivers to requestors so as provides information about fare estimates, which is part of an involvement practice (Breidbach and Brodie, 2017). As the discussion above shows HRM practices are used also in crowdsourcing and provide evidence of the existence. Crowd workers have no binding agreement to the crowdsourcing platform yet are motivated by several aspects. Those motivational aspects have been studied by Deng and Joshi (2016) and resulted in four essential motivators; namely crowd work context,

crowdsourcing task characteristic, crowd worker needs and digital work control. Crowd workers are subject to HRM practices and this literature review results in evidence of existing HRM practices in crowdsourcing. Yet, if those HRM practices are depending on a specific platform firm or who is executing them is still unclear at this point.

In conclusion this chapter provides the theoretical background for the goal of this paper. By creating a definition for crowdsourcing: ‘Crowdsourcing can be defined as an act of outsourcing a task by a requestor in form of an open call to a crowd (undefined large group of people, the crowd worker), through a crowdsourcing platform.’. This definition resulted in the main actors of crowdsourcing, which are crowd workers, requesters and the crowdsourcing platform, those three actors are also used throughout this paper. Next, the ecosystem and the HRM practices used between the main actors involved are described and their relation examined. Based on Breidbach and Brodie’s (2017) model they interrelation of the crowd workers, requesters and the crowdsourcing platform is made. Therefore, all three actors need to be committed and are interdependent. This statement leads to the case that for the crowdsourcing platform to exist the crowd workers and requestors need to be requesting and providing services in an ongoing cycle. Lastly, is looked for evidence and existence of HRM in the eco system. As crowd workers are not employed in a traditional sense yet need to be committed to the crowdsourcing platform. Through a literature review, evidence of HR practices is found, yet leaves the questions of who is executing HR practices unanswered. In order to answer what HR practices used and who is executing them, the current study will be conducted.

2.4 Current study

The conceptual model is inspired by the theoretical framework of Breidbach and Brodie (2017) and illustrates the exchange of service within each actor of crowdsourcing. This model

will be used during the current study to illustrate the three main actors involved so as their interactions. For now, only is known that HR practices are used. Yet which HR practices and who might be executing those practices is mainly assumed in this model (see figure 1). As there is no evidence yet, who is executing those HR practices and what HR practices specifically are used, this topic will be empirically researched on in the following section. Currently, only assumptions based on the literature review can be drawn.

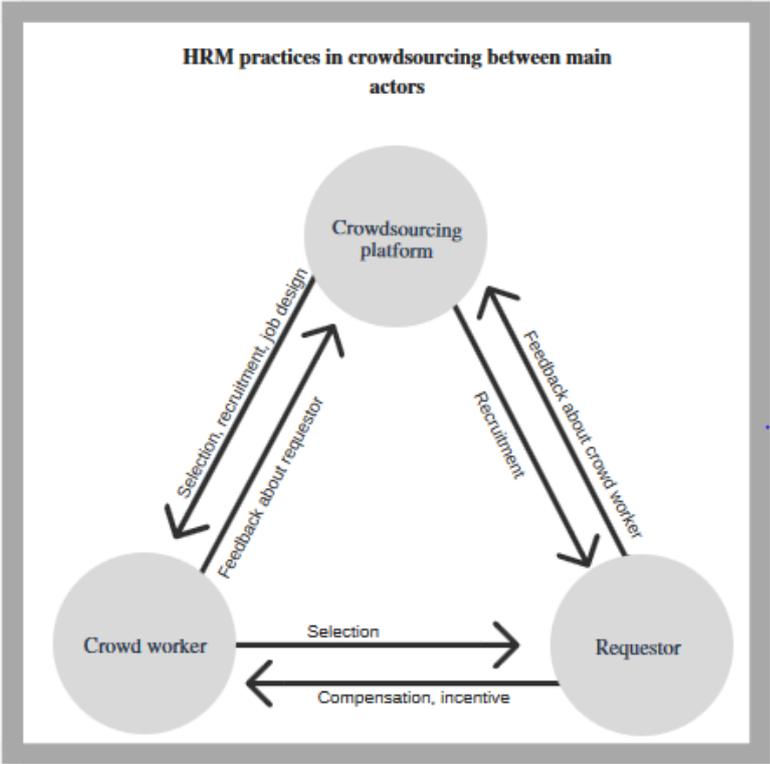


Figure 1 Conceptual model of crowdsourcing platform, requestor and crowd worker

3. Methodology

In this section of the paper the used research design is explained, including the research method and data collection. Also, codes and asked interview questions, so as the analysis of the data is explained.

3.1 Research design

A case study is used to find, which HR practices are used and who is executing it within crowdsourcing meal delivery platforms. The study will be primarily a qualitative research, in form of an in-depth explorative case study. A reason for choosing a case study is the possibility to gain an in-depth insight in a phenomenon of a natural setting. As a qualitative exploratory study is conducted, a natural setting gives the best opportunity to answer the research question in a natural context. So, the environment is not changed, and the study participants can act, speak and behave in their natural way. The context of this case study is based on the HR practices used, which are situated in the eco system of crowdsourcing. So, HR practices can be explored in the setting of the eco system, so as the actors that these practices are executed from. In this empirical research, the main concept of what HR practices are used and who is executing it in the crowdsourcing ecosystem, are aiming to be generalizable and not depending on time and place (Eisenhardt, 1989).

The case study was conducted at crowdsourcing meal delivery platforms called Deliveroo and Uber. A reason for using these platforms for the research is, that they align with the formulated definitions in the theory section and provide ideal conditions to identify the existence of HR practices and by whom they are executed. The mentioned crowdsourcing platforms above present the exchange of service between the actors of the ecosystem, so as the crowd workers are not officially employed by those platforms, instead are registered as free lancers (Uber, 2019).

Roofoods Ltd. branded as Deliveroo is a private British online food delivery company with its headquarters in London, which was founded by Will Shu and Oleg Orlovski in 2013 in London (Deliveroo, 2016). After the realization that so many restaurants did not have a delivery service, it became the mission to deliver meals from local restaurants to peoples doors

(Deliveroo, 2019). Uber is a public technological transportation company, with its headquarters in San Francisco, which offers different services, such as transport, food delivery and a bicycle sharing system (Wikipedia, 2019). For this study the food delivery division UberEats is of interest, the reason for deciding to only focus on UberEats, is the possibility to also interview crowd workers from other platforms, such as Deliveroo. The way the company's function is explained as following. The crowdsourcing platforms show a list of different partner restaurants available for food delivery in the area of the requestor. As soon as the requestor chooses a restaurant and places an order, the restaurant receives the order details for the food preparation. At the same time the crowdsourcing platform app searches for crowd workers, in this case riders (bike or scooter) in the area to pick up the food order from the restaurant and deliver it to the requestor (How Uber works, 2018.). Deliveroo is operating in thirteen cities in the Netherlands until now (Deliveroo, 2019). Uber is operating since 2012 in the Netherlands and is currently present in ten cities with the UberEats division (Uber, 2019).

3.2 Data collection

Data collection has been done in three different way, namely interviews, participative observation and document analysis.

Interviews

The data used for this research comes from in depth-interviews. Preferably an interview with all three actors of the conceptual model is conducted, to understand by whom and which HR practices are carried out. The interviews are transcribed and coded based on the codes from appendix 1. As a result, from the theory section, can be concluded that all three actors of crowdsourcing, namely the crowd worker, requestor and crowdsourcing platform are providing HR practices to one another. So, in order to find out what HR practices are used and who is

executing them, all three actors should be interviewed. The semi-structured type of interview will be conducted to ask questions to the three actors of the crowdsourcing ecosystem in a simple way and find the underlying answers about the existence of HR practices. The questions are formulated in such a way to answer the what, how and who principle and cover the potential HRM domain of abilities, motivation and opportunity. Appendix A provides an overview of what –in our understanding of the above criteria–, necessary questions are required during the interviews. For the ability's domain the HR practices recruitment, selection, training and development are measured. For example, recruitment is measured with a question as: How did you learn about the required qualifications? The motivation domain measures HR practices, as such, performance management, performance appraisal and total reward. For example, performance appraisal is measured with a question, like: Is someone evaluating/reviewing your work performance? The domain opportunity measures the following HR practices, which are job design and job engagement. Job design is for example measured with a question, like: Who communicates to you about the processes and methods related to your task? A complete overview of all the interview questions asked, is present in the appendix A. The reason for having a preset interview scheme is, to create a structured and coherent outcome of all conducted interviews with comparable and overlapping results, in order to draw conclusions and retrieve new discoveries.

In the early stages of the research study, the crowd workers were approached via social media and on the streets while delivering food. It resulted in several interviews with crowd workers, who work for UberEats and Deliveroo, as they work for more than one crowdsourcing platform and combine their work. Later, Uber joined the research study and their management team, was willing to participate in an interview as well. In addition, Uber provided contacts of crowd workers and restaurants to be interviewed for this study. A total number of ten interviews have been conducted, of which one was held with the Uber management team; four with

Deliveroo crowd workers; two with Uber crowd workers, one with an Uber and Deliveroo crowd worker and lastly two with Uber partnering restaurants. The interviews took on average 40 minutes per interview.

Participative observation

The researcher signed up as a crowd worker at UberEats and delivered food for 2 days in Amsterdam. The motive behind it, is to operate in the natural setting as well as to see if there are any HR practices that have not been mentioned by the interviewed parties. During that time, also the requestors were asked questions when the food was delivered, by the researcher. A deeper insight was gained of the HR practices performance appraisal and job design. Screenshots have been taken from the App to capture the data and analyzed. Also, the contact with requestors and restaurants in a position of a crowd worker, made crowd sourcing more tangible and feasible.

Document analysis

While the researcher worked as a crowd worker, screenshots were taken of the application to later analyse the notifications and procedures to discover HR practices. Evidence of HR practices, such as performance appraisal, job design and total reward. A reason for analysing those practices is that they appear and are present during the executing of the requested task as a crowd worker. In addition, a performance evaluation, which is provided by Uber to their partner restaurants is analysed for HR practices. This performance evaluation includes total orders, payment, missing items in an order, feedback and a comparison of several branches of the same restaurants in the Netherlands (only the ones are compared, which are owned by the same person). In depth HR practices as such performance management, performance appraisal, total reward and job design are likely to appear.

3.3 Analysis

After recording all interviews, those interviews are transcribed and coded with the program called Atlas.ti. The codes are nine HR practices, which are recruitment, selection, training, development, performance management, performance appraisal, total reward, job design and job engagement (Jiang et al., 2012). Those nine codes have sub codes, with which they are identified and labelled in the transcript, that can be found in appendix B. Additionally three different codes are used for the actors of the crowdsourcing ecosystem, which are crowdsourcing platforms, crowd workers and requestors (Breidbach and Brodie, 2017). All the mentioned codes and their definition, so as their sub codes are listed in appendix B. Deductive coding is applied first, to filter the gathered data out based on the theoretical parts, such as the nine HR practices and the four members of the crowdsourcing ecosystem. Afterwards inductive coding is used to see if there are any additional findings which have not been discovered in the deductive approach. Those additional findings result in codes, such as the additional member of the crowdsourcing ecosystem restaurants (Appendix C). In order to gain trust worthiness of the data, data triangulation is used as an approach to do so (Bogdan and Biklen, 2003). With data triangulation is meant in this research a three-way approach of reviewing data. To begin with the researcher reviews the gathered data based on the observation and documents gathered. Next, the transcribed interviews are sent back to the interviewees, so they can read them and see if all information mentioned there is correct and they would confirm it trustworthy to their current state of mind. Lastly, the gathered information is verified with the management board of the crowdsourcing platform to have a third angle view on the data and filter it to reliable and trustworthy facts. The reason for using this method is to increase validity of the research and proof that the collected data is trustworthy.

In addition, the gathered interviews have been coded separately by two researches to discover if there is an overall agreement. In the end the analysis of both researches, resulted in the same

conclusions. This approach is used to show that the conducted analysis of the researcher is reliable and could be performed by any other researcher concluding the same results (Pontius and Millones, 2011).

4. Results

This section of the study is divided into four parts, firstly the case description, which describes the company's used for the case, also the theoretical overlap of the company's setup and the theory. Secondly, the research results of the ability enhancing HR practices are presented. Thirdly, the results of the motivation enhancing HR practices and fourthly the opportunities enhancing HR practices results are presented.

Case description

The case study was conducted at two different crowd sourcing platforms. A reason for it is the fact that several crowd workers work at several crowd sourcing platforms and could answer questions to each one of them. The companies Deliveroo and Uber (within the UberEats division) are used for that research, in its natural setting. To begin with Deliveroo's main and only focus is food delivery of local restaurants, which usually do not offer a delivery service themselves (Deliveroo, 2019). A key value of Uber was mentioned repeatedly and is part of the vision and mission of the company. The key value is flexibility, crowd workers, have the autonomy to choose, what day or time they want to work, or if they want to work at all. There is no obligation at all, and the philosophy behind it is, that the market balances itself out. So, in other words, if there are many crowd workers online in the UberEats app and are available to work, they get less order requests. So, for next time crowd workers know and go online on different times. Also, the Uber management mentioned that they try to regulate the market, by informing crowd workers when there are special events, so an increase of available crowd workers is required and balanced by the crowd sourcing platform. Another factor that makes

crowdsourcing platforms unique is the possibility to stop working as a crowd worker any time. There is no notice that needs to be given or any obligation, literally speaking an open door and people can come and go whenever. Furthermore, the restaurants, which are also partners are having the autonomy to be available for order requests and go offline when it gets too busy for them. Both crowdsourcing platforms want to provide for the requestors a high variety of different cuisines within their region. So, they are not only focused on restaurants, which do not have a delivery service but on the popularity of restaurants of specific regions as well. Something interesting that restaurant owners mentioned; when restaurants are performing well, in other words pick up an order within seconds and do not reject orders or have missing items, they are assumed to be displayed higher on the list of the UberEats App. For both crowdsourcing platforms to keep everyone satisfied, all three parties, namely the crowd workers, restaurants and requestors are providing feedback to one another, which is communicated and monitored through the crowdsourcing platform app. From the HRM side is interesting to analyse this crowdsourcing platform, to see if HR practices are used and who is executing them in such a unique setting. UberEats is well suited as an example as their way of operating fits the definition of a crowd sourcing platform, which was defined in the theory section.

Ability enhancing HR practices

Recruitment

When speaking of recruitment within the crowdsourcing ecosystem, is clear that the crowd workers are not employed, yet somehow attracted to work for the platform, so as they apply and qualify to perform the requested job. While interviewing the management board of UberEats, became clear that the attraction of crowd workers is highly essential when entering a new city. As the network is not established yet and the demand is only estimated, so the market is not balanced out yet. Depending also on the city, the labour opportunities are different, like UberEats mentioned:

'It depends per city and per market, some cities there is more demand from the market for earnings opportunities or people looking for jobs. Students for example vs less students so on the delivery partners side that makes a difference and sometimes we don't know in advance if it's going to be easy or difficult to find new delivery partners.' (Ubereats management board)

The way of attracting crowd workers, in this case riders to sign up on the Ubereats platform is mainly done via advertisement on social media or other channels, to reach a reasonable amount of potential crowd workers, as mentioned here by Ubereats:

'In the same time track we start looking for delivery partners, which we do through online advertisement, on Facebook or Google search and we create a website for them, where we have some basic information, which we have for all delivery partners in the Netherlands. Once we have enough interest we will go and visit the market and host information sessions. We will tell how to use the app, how do payments work, what kind of gear can you use, how much money you can make and provide a basic information session. We do that several times a week depending how many people there are.' (Ubereats management board)

In addition, Deliveroo and Uber offer referrals bonus, so when a crowd worker refers someone to work for the crowd sourcing platform there is a bonus, which is an additional recruitment tool.

'Ja Je krijgt er iets voor en de rider krijgt ook iets voor. Dus eigenlijk toen ik aan de gang ging, krijgt je €50 extra golfen op de bonus die je anders toch wel krijgt. Degene die kleren verkocht die is alsnog in dienst van Deliveroo, dan zeg ik geef mij de code maar dan heb jij €200 en ik €50. Ja is beter dan en hebben wij allebei geld natuurlijk, dus geef maar. Dus dat is de referral je krijgt, Ik krijg 150 tot €200.' (Deliveroo crowd worker)

'Uber pays is 75 Euros., but with Uber the potential rider gets nothing.' (Uber crowd worker)

Another essential part of recruitment are not only the crowd workers, but also the restaurants side for Ubereats. When entering a new city, an established list of restaurants needs to be present to serve the requestors demands, as mentioned by Ubereats:

'So, we start looking at all the restaurants available and we start prioritizing and reaching out to restaurants to see if they want to partner up with Ubereats.' (Ubereats management board)

From the mentioned above recruitment procedure can be noted that crowd workers are attracted in a broad way with online advertisement, while restaurants are selected and approached individually.

Selection

One key value of UberEats in addition to flexibility is openness and acceptance for everyone.

This value yet is only applicable for crowd workers, so in other words anyone can join and become a crowd worker, there is no selection procedure, as UberEats admits themselves:

'An important thing also that they're hinting at us, there is no discrimination; there is no selection, anyone who wants to apply and wants to use the app and meets the criteria has access.' (Uber management board)

The process of being accepted as a crowd worker at UberEats is called the 'onboarding process' and involves a few steps, which can be considered as bureaucratic procedures before beginning to deliver food. The criteria, which were mentioned by the UberEats management board, were explained by a crowd worker and include very basic information, such as the BSN number, address, personal identification information, a smart phone (to be able to use the UberEats app) and a bike or scooter:

'Social Security number, identification, nationality, address details of course, otherwise it would be difficult to invoice, telephone number and you have to answer a number of questions. I have a bicycle; I have a mobile phone that runs on Android 4.0 or higher or Bluetooth or NFC. In any case, just what is needed for the rest, they didn't ask for anything' (UberEats crowd worker)

Restaurants have a more specialized and restricted selection procedure to follow, according to UberEats, as restaurants are selected based on their popularity, cuisine, price range and ratings on platforms, such as TripAdvisor, Booking.com etc.:

'Our priority is just to have a good selection where people have a choice between different cuisine types; price levels and we try to build a healthy mix of that.' (UberEats management board)

When UberEats has decided to enter a city for example Amsterdam, as there are more restaurants available the amount of partnering restaurants also increases. The top 20 restaurants of the city are of importance, the popularity of restaurants is determined based on the websites already mentioned above, such as TripAdvisor, Booking.com or Bloggers. As known names will be added, also the variety, price range and cuisine type increases and makes it possible to enter a city. If on one hand, the city has the top 10 restaurants and all of them are partnering with Uber, then UberEats is ready to enter the city. On the other hand, for example no known

restaurants are added, then the total amount of partnering restaurants needs to be higher up to 100 until 200 restaurants as requestors need to have choices.

'It really depends on the market so in Amsterdam you can imagine that we want more restaurants. I think it depends also what restaurants we can really find. If we can find like let's say, there is a known list of the top 20 restaurants or 10 and we get all those of 10 then you say we have a great selection. We have different type of food and quality high end and more affordable, than you could launch with 10 or 15. If you have left known names you might need a higher number like 100 or 200.'

After a list of the desired restaurants is established, the approaching process starts including a contract, which includes the percentage the restaurant will pay for each delivery according to

Ubereats:

'For restaurants there is just a phase where you prioritise and get in contact with people. Have conversations they signed the contract and take pictures of their food items; of their menu to, make sure that all the prices are correct. That's for certain number of restaurants it just takes time because it's a process.' (Ubereats management board)

In the contract restaurants also must provide specific information, such as Chamber of Commerce number, tax number, ID's from all shareholders, which own above 25%, which are to some extent more detailed than the ones of the crowd workers:

'Just the ordinary things as, companies address, Chamber of Commerce number, BTW number, tax numbers, just all the details which you need for businesses. Nothing special, to be honest. The only thing that I find a bit weird is that they ask for ID's of from shareholders that have more than 25% of the shares of the business. They recently y asked for that and they said because of privacy laws, I recognise this as against privacy law.' (Ubereats partner restaurant)

After the restaurant is selected and accepted, they receive a tablet and a printer from Ubereats, for which they pay a deposit:

*'Uber also gave you the tablet and the printer?
Yes, you pay a deposit.'* (Ubereats partner restaurant)

Obviously, there is a difference in the selection procedures of restaurants and crowd workers.

Even though Uber claims there is no selection for crowd workers, they still need to fulfil some criteria. While restaurants are individually targeted by Ubereats themselves.

Training

Ubereats has a form of training for crowd workers, which is part of the 'onboarding process' and involves a form of an online test. Yet, sometimes there is no test, but a presentation for a group of new crowd workers (this way is mainly done when Ubereats enters a new city):

'Yes, for example if we start a new city, we do not ask everyone to take the test. We just tell during the information session, by showing the application. Because you have probably not been in a group session

of an information session, where they explain the app so then we will ask you to watch a video which has the same function.’ (Ubereats management team)

Later, individual crowd workers who want to join Ubereats are taking this so-called test, yet it is more an information session, how the app works, as there is no failure. If a certain amount of questions is not answered correctly, the test must be redone. The possibilities of trials for this test are unlimited, so there is no option to fail:

‘In person the community operations team talks to you and then we want you to understand the app, so that’s the information video that you have seen with questions and you can make it as often as you want. So, we don’t call it a test because the test you can fail. We have an introductory video that you can watch again.’ (Uber management team)

For restaurants there are sometimes events organized, during those events’ restaurant partners are invited in big groups. Some background information about the functionalities of the app are explained and information about the Uber itself, as told by a partner restaurant of Uber:

‘to discuss future negotiations, future possibilities, but also, they gave us a little bit information, background information. So, they showed us, what happened if I push the button, to accept the order, what happens with Uber and what happens if the driver is not coming or the client is not happy. All kinds of situations, in which you get more inside view of what Uber does and you get more understanding, with each other.’ (Uber partner restaurant)

So, no additional skills are required from the crowd workers or restaurants, just some information about the functionalities of the Ubereats app is provided. Moreover, no update training on the changes of the functionalise is given or any kind of update training.

Development

There is no growth opportunity if you are a crowd worker at Uber or even the other crowd sourcing platform Deliveroo, as crowd workers have stated:

‘No, no you don’t, you get nothing. The only thing you get from Uber, every Sunday or Monday you get an email with things to do in Amsterdam, with all the events, but that’s just because then you can make more money.’ (Uber crowd worker)

‘For example, if you think you want to do something in addition at Deliveroo and you ask them, do you receive any news of opportunities?’

No.’ (Deliveroo crowd worker)

Also, one Uber driver confirmed that there is no growth opportunity within Uber, to get a higher position or be promoted.

‘After a thousand of rides, but I never got asked ‘Hey do you want to grow within Uber get position at Uber?’ Maybe you can, but then you have to apply and go through the whole process with Uber and have an interview. There is no easy way for an Uber driver to an actual Uber employee.’ (Uber crowd worker)

It is clear, in terms of development as a crowd worker at a crowdsourcing platform, there are no options. There is no promotion, or any opportunity is supported by the crowdsourcing platform to grow to a higher level or get another role besides the one of a crowd worker.

Motivation enhancing HR practices

Performance Appraisal

Deliveroo and Uber have the option for requestors to leave a tip for the crowd workers, via the app, when they are satisfied with the delivery.

'he or she has the option to tip the driver. that can be 1 Euro, 2 Euros, four, five or even be a 1000 Euros, it doesn't really matter.' (Uber crowd worker)

'You can get the tips, like 1 or 2 Euro from clients.' (Deliveroo crowd worker)

In order to motivate crowd workers and work on inconvenient times or when it's bad weather, Deliveroo provides a bonus for every 5 orders the crowd worker gets 40-50 Cents extra and when it's bad weather a bonus of 50 Cents until 3 Euros, when reaching 5 orders is guaranteed:

'What I wanted to show you, this is the bonus you get for every order, which you get every two weeks. It's basically, ones you get 5 orders you get 50-40 cents.' (Deliveroo crowd worker)

'So, it's bonus per hour, if it's bad weather or it's super busy. It can go from 50 cents to 3 Euro, something like that and bonus for every two weeks and referral.' (Deliveroo crowd worker)

Deliveroo works in a different way than Uber does and asks their crowd workers to sign up weekly for working shifts. Those working shifts need to be booked and arranged by the crowd worker. When a crowd worker reaches a high attendance, which means that no shift was cancelled or called in sick etc, then the crowd worker becomes a member of the high priority group. This so-called high priority group can book their working shifts for the next week earlier than other regular crowd workers. As a result, the high priority groups have the choice to book their work time whenever, after they finish their booking the work time slots are open for the other crowd workers and they must choose and pick what ever slots are left. This way of differentiating crowd workers, is considered as a reward as well:

'Yes because of my priority group, if you don't work a lot you won't be able to book that kind of slot you know. You cancel it again and again, you know, so that's a good thing of Deliveroo. If you work hard then they let you be in the priority group, you know.' (Deliveroo crowd worker)

Moreover, some discounts for different stores or services are also offered to crowd workers from Deliveroo.

'korting van €5 bij de Decathlon, korting op een reparatie van een mobiele scherm, 10% korting bij de Burger King.' (Deliveroo crowd worker)

Uber provides turnover guarantees for crowd workers, if for example they work on a specific day or time. Yet Uber itself does not pay anything or a very little amount extra to the crowd workers, as Uber has an estimate already that this is how much can be earned on that day or time frame, yet it is presented as a bonus to the crowd worker:

'So typically, the turnover guarantee and the guaranteed amount is actually at the same level as they would earn organically. So, Uber pays the difference but it's a small amount compared to the total amount. Usually we do this in the peak hours, so for example when delivery partners typically get a lot of requests and earnings are already at that level. So typically, sometimes we don't even pay anything or is a very small percentage to the total amount.' (Uber management board)

Also, none monetary rewards are offered by Uber, such as discounts on bike repair service or phone repair as well. As many crowd workers provided feedback that the bike or scooter is broken, and they cannot perform the tasks anymore. So, Uber went to a bike repair shop and negotiated some discounts which can be used by crowd workers:

'Because for example your phone falls and your screen breaks, or I have a flat tire, or do you know someone and has an e-bike. If we for example see that there is a lot of demand from the delivery partners, for a specific type of service or product. then we start thinking how we can make life for a delivery partner better; we help them to get a discount on that product. We can go to for example a provider of e-bikes and say, we have a very big group, most people are interested in your service, what if you can generate some additional revenue for you and provide a discount to these people. So, they will benefit from the platform and then we will start talking to those partners say, if you rent for example an electric bike with a promotion code called Uber eats as a delivery partner then you can rent an e-bike for cheaper.' (Uber management board)

In fact, crowdsourcing platforms are motivating crowd workers by rewarding them for their performance in several ways. Like requestors have the possibility to leave a tip for the crowd worker after the delivery is completed; a bonus is offered to crowd workers when they work on inconvenient times or under bad weather conditions; Deliveroo incentives crowd workers who do not cancel their work shifts or are often sick and let those book their work times before the other crowd workers; Uber promises crowd workers guaranteed earnings on specific times or days, also when crowd workers are active they face issues such as a flat tire or need new cloth to cycle and deliver food, so Deliveroo offers some discounts for some stores and Uber eats

provides for example offers on bike repairs in order to assist crowd workers and make their daily life easier.

Performance management

Performance is measured in several ways at Uber, firstly the restaurants receive feedback from the requestors and crowd workers, which is provided to the restaurant through a performance report that is created by Uber. So, ones in a month the restaurants receive a report with financial information, but also feedback, which is provided by crowd workers, for example if the food is ready on time and by requestors if the food tastes good or if items were missing etc. Restaurants have meetings with their Uber contact person to discuss the information provided in the report and in addition also have a dashboard, where reports about the turnover, ordered items, missing items is listed and can be viewed at any time:

'If it is like a trend then we say this is the feedback we are getting. If it's only once, then it might be an outlier. The restaurant have a dashboard and we sent them reports, where they can see these types of feedback types aggregated not on the individual level.' (Uber management board)

'But also, it happened that we call, for example after the first month, we will call the account manager: Is everything clear? - Yes, I understand everything. -Perfect, you also understand everything, yes cool, have a nice day, bye. So, it also really depends on what the restaurant is looking for and needs.' (Uber management board)

'It's also the information system so I soon but we are in right is you get that weekly report with your writing with 5 most comments that are made.' (Uber management board)

Secondly crowd workers also receive feedback from requestors, which is also provided through the UberEats app with thumbs up or down. One Uber driver explained the rating system for driver from 1-5 stars, with 1 being the worst and 5 being the best. Uber follows up when requestors rate the service lower than 5 and ask for the reason as well:

'Yes, the client gives you a rating, it's either 1 star or maximum 5. It needs to be somewhere in between, with 1 star is bad and 5 stars is amazing. If the client wants to give you 4 stars, the Uber app will ask you what went wrong. You also have the possibility to contact Uber support, it's impressive and you can type your message and then Uber knows what went wrong. I know one or two cases were Uber just contacted the client and asked what went wrong, because you gave the driver 1 star and they kick the driver off immediately, if this story is terrible.' (Uber crowd worker)

'He's delivering the restaurant food to the customer, that's why it's important that the restaurant rates the delivery partner and on the other side it's the same thing.' (Uber management board)

Thirdly, Uber also receives feedback from all partners, such as the restaurants, the crowd workers and the requestors. As Uber aims to continuously improve their service and the app, they collect feedback in forms of surveys, round tables meetings or even via the UberEats app itself:

'It is used for improving performance definitely, I think for the restaurant is important to know what they're doing well and what could be improved. By improving the quality of the system, I think it's a platform, it's a marketplace, everyone can enter the marketplace and I think feedback, customer feedback and all three our customers of us of course it's in our DNA. It's an open platform where feedback to each other is given.' (Uber management board)

'We want to provide an easy way for delivery partners to provide feedback to us, they can come in during opening hours and talk to one of the people from the community support team. We get feedback in that way as well, but those round table meetings are specifically mentioned, every now and then. Usually it once per quarter up until now it's like a way ok, what would you like to discuss with us? What can Uber do better so the app works better for our partners? What do you like? So, it isn't really an open conversation. Sometimes we talk about football, but the goal is to provide an easy way to give feedback to us. Then if there is something that we have not heard before, we acknowledge this, and we see this, and we see that this is actually an issue.' (Uber management board)

All in all, each member of the crowdsourcing ecosystem is providing feedback to one another, in order to keep the level and exchange of service moving. In addition, to eliminate members or provide feedback to improve or change behaviour, functionalities or features in future.

Total reward

Crowd workers have contact with each other and even organize social events, without having the crowdsourcing platform involved. They discuss work or share a meal together and even share tips about the work processes.

'So, what I have noticed is that it is the same everywhere, what I said before because I mainly noticed that riders know each other better. They have the time and take the time to know each other.' (Deliveroo crowd worker)

There are also events organized by the crowdsourcing platform, where crowd workers and restaurants are invited to receive information about the crowd sourcing platform, their goals, new changes and collect feedback as well or have a social gathering.

'Yes, it's all in the game, I have been invited by them last year summer to come in the office, which was really, appreciated. Because I sat down them with 40-50 other restaurant holders, we were invited at the Uber office.' (Uber partner restaurant)

'They made a BBQ, as I just worked 2 weeks for Deliveroo, I myself have not been yet. I heard about it from my friends, I was jealous.' (Deliveroo crowd worker)

Also, restaurants want to keep the reliable crowd workers motivated and accept the orders for their restaurant, so they offer some food, drinks or usage of the rest room, while waiting until the order is prepared:

'When it's cold I get them some fries or something to drink in the summer. You know, we are very friendly to them all, they can always sit, they can always use the restroom' (Uber partner restaurant)

Uber also rewards partnering restaurants, like shooting a video with the restaurant and displaying it on the UberEats website and app. The restaurants do not pay for this service, a selection criterion on why, which restaurant is select to participate in the video cannot be drawn from the data which has been collected for this study and is at this point unknown. This is also an additional marketing advertisement and will increase the amount of orders for the restaurant:

'All this year's with Uber we were invited to do the advertising campaign for UberEats, which comes in November. They filmed hearing with us, they chose us, to do the video we are still waiting for the result. The small movie we saw was really beautiful, I think they do a typical American way, that's for sure.' (Uber partner restaurant)

Payment as a compensation for the service provided by the crowd worker, is calculated and payed out by Uber:

'From the top of my head it is in your application if you made a delivery. I think it's 2,70 for pickup and €1 for drop off drop-off and 80 cents per kilometre.' (Uber management board)

While the restaurant is paying for the crowd worker, as it is a price which is already included in the order the requestor orders, depending on the percentage which was negotiated with UberEats:

'But the restaurant pays for the delivery, so also for example if the meal price is 20 and the commission for Uber is 25% or 30% on that. Then there is more money than the delivery, then the amount of delivery partner gets from the restaurant. So, then the margin for Uber is a bit bigger.' (Uber management board)

The above-mentioned rewards, like social events, high enough payment, shooting of an advertisement video are all reasons for crowd workers and restaurants to be using the crowd sourcing platform.

Opportunities enhancing HR practices

Job design

When looking at the job design, flexibility is an essential part of UberEats. Crowd workers can just stop working for a while, like students during the exam period and come back whenever they want:

'You don't have to quit, that's a great part. we have a lot of people that are studying, and they have exams for months and then they don't do any deliveries that's fine that's how our system works.' (Uber management board)

Crowd workers have the possibility to just go online in another city, if UberEats is present there they can work from there and are not bound to a specific location:

'In general, if you look at all our cities, you can just go online whenever you want.' (Uber management board)

If crowd workers do not agree with the distance which is shown for the pickup at the restaurant or delivery address, they can reject the order. The option to see the distance and location of the restaurant and the delivery address is only possible at Deliveroo.

'Yes, I now reject shifts, so I book myself on and I was a week away, so I just offer them to others, sometimes they pick it.' (Deliveroo crowd worker)

Restaurants also have the same possibility and can go offline and online whenever it suits them.

Yet, from Uber's experience this happens more rarely than with crowd workers, but restaurants also have the autonomy to choose when to go online and when offline:

'A restaurant can also go online or offline and of course it's a little bit different than on the delivery partner site, of course it's more stable, as people just sometimes they are busier with their in-store sales and they decide that it's not a good day for delivery, that's ok. Sometimes they go on vacation maybe one day they want to start at 10 and the day after it 1. It's of course a bit a little bit less viable than on the delivery partner site but I think it's still the marketplace.' (Uber management board)

There is a period of one or two months when you are completely inactive then Uber blocks your account and you must go back to the office and ask them to activate it again:

'For a month or 2 months you can, after an inactive period of 2 months they actually block your account. You need to go back to the office saying that you want to be activated again and drive for Uber. They inform you; you are activated now good luck.' (Uber management board)

Something else what a crowd worker mentions is, when you do not accept requests fast enough or at all, you receive less requests in general:

'I figured in the beginning if you do not accept a request or are too late to see it, you start getting less requests. So, it seems like other people, who have a higher acceptance level, will receive the requests first then.' (Uber crowd worker)

Partnering restaurants of UberEats also have their own rules, as already mentioned before they require crowd workers to have an isolated bag to transport the food. So, if they do not have it or not bring it, the restaurant can refuse to give the food to the crowd worker:

'we had a couple of confrontations, that there are some certain drivers who don't have a bag and I don't give the food to somebody who says, oh I just bring it just like that. I want you to put it in the bag, so it keeps it warm, especially in Winter. So, this discussion I have with many drivers, until fights, I mean verbal fights and then I refuse to give them the food.' (Uber partner restaurant)

Deliveroo in this term is not as flexible and requires crowd workers to book working sessions on a weekly basis and report inability to work as well:

'That's a good question, I think it was like every Sunday the booking system closed. So, you have basically from Monday to Sunday, so like 7 Days to book for the next week.' (Deliveroo crowd worker)

'So, I have to call to the emergency number and when you swipe delivered the house number and everything will vanish, and I have to call the emergency number' (Deliveroo crowd worker)

Overall can be concluded that crowd workers and restaurants have a flexibility while working for UberEats, but also must follow some rules, guidelines while working together. Even restaurants can shape the work for crowd workers by for example asking them to have an isolated bag for the food delivery and refuse delivery orders if they do not have one. Deliveroo is more regulated in terms of work schedules and offers less flexibility.

Job engagement

Crowd workers feel responsible sometimes, when something goes wrong and take ownership of the situation and contact restaurants to find a solution when orders go wrong for example:

'I mainly call the restaurant myself and say, hey this went wrong can you have it ready again.' (Uber crowd worker)

Partnering UberEats Restaurants also help crowd workers with understand the UberEats app, when crowd workers just start delivering and explain the following steps, so as how the app works a bit:

'He was taking out his phone and one of the brothers was helping him out, to explain him hear you pick up the food, because he thought he was delivering the food. Here you pick up the food and to have to deliver it and then he was asking how does it all work.' (Uber partner restaurant)

Requestors also take the initiative to help crowd workers find the way, as sometimes the roads are under construction or blocked, so crowd workers do not know how to get to the destination.

So, crowd workers, either guide them through the phone or come out to spot them when they are nearly there or in the area:

'Because the next time I went I was already more confident and what I did is I was calling the client and telling them that I cannot find them. Explaining that the route is blocked that if they can recommend me a way. So, they actually come out and help you then.' (Uber crowd worker)

Crowd workers also understand that some dishes need to be prepared last minute and, on the spot, like for example Pasta, so they are willing to wait some minutes at the restaurant until the meal is ready for delivery:

"Pasta is something that takes 12 minutes. Well I also say fine, yes that can happen, I'll wait. If it takes longer, it is fine as well.' (Uber crowd workers)

Uber partnering restaurants must deal with all kinds of crowd workers, as there is no discrimination or real selection procedure, so there are can difficulties in communication or even working together. When the situation escalates and restaurants complain, Uber eats acts and makes sure that the restaurant is protected and save:

'They asked me, if I wanted to have security in the shop, they contacted me almost every day how we were going, because threat was not nice.' (Uber partner restaurant)

In conclusion can be said that crowd workers, restaurants, Uber eats and requestors are committed in their own way to the crowdsourcing ecosystem and put additional effort for the process to work and run accordingly. Also, is interesting to see that crowd workers, feel responsible for the delivery and restaurants for the food, so as requestors for the arrival and the crowd sourcing platform for all parties involved.

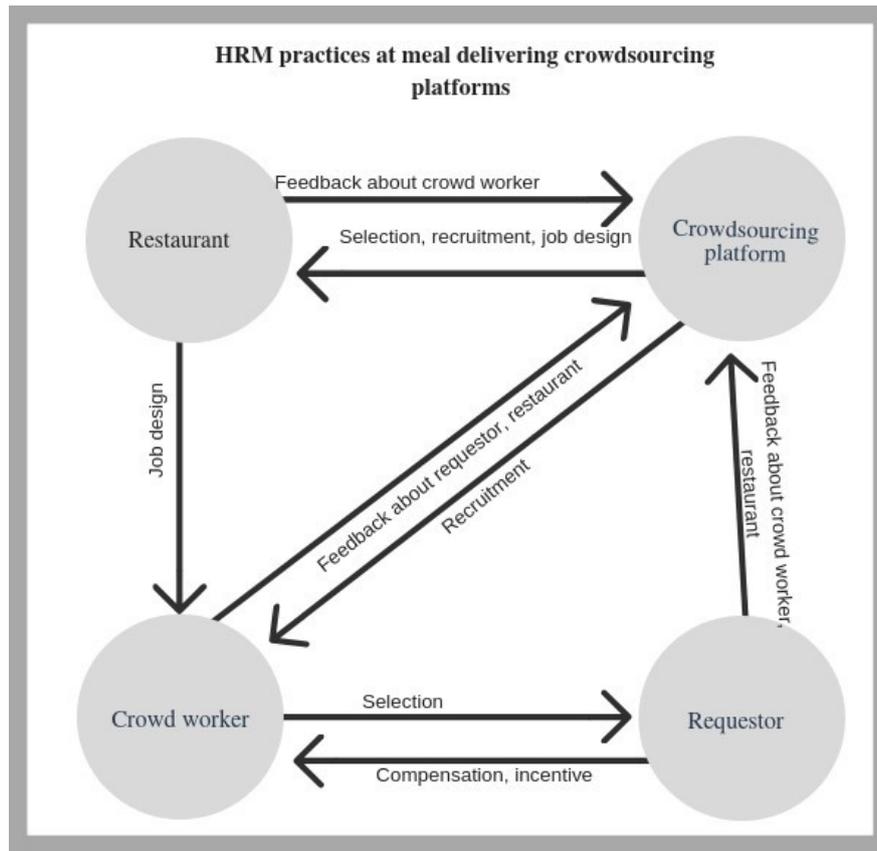


Figure 2 Adjusted conceptual model of all crowdsourcing members within the crowdsourcing ecosystem

Table 3

Existing HR practices within crowdsourcing meal delivery platforms

Actors	Crowdsourcing meal delivery platforms (Ubereats & Deliveroo)	Crowd workers	Restaurants	Requestors
HRM practices				
Recruitment	Advertisement, social media	Referral	Selective individual approach	
Selection		No selection procedure, just general legal requirements, such as eligible to work in the country, being over 18 and have a passport, so as a smart phone	Specified selection, based on ranking of popularity on web pages such as, Trip advisor and Booking	
Training		Onboarding test, with no failure option to inform and teach about the functionalities of the app	Gatherings for restaurant owners to learn about the functionalities of the app and share struggles or suggestions	

Development				
Performance appraisal		Receive bonuses for working on inconvenient hours or bad weather conditions, discounts in different stores or services		Leave tips for crowd workers
Performance management	Collects feedback from all actors involved, through surveys, round table meetings and via the app.	Thumbs up or down, so as additional comments	Performance report	
Total reward		Social events and contact organized by crowd workers themselves, social events organized by the platform as well, receive drinks or food, from restaurant, payment for provided meal delivery	Commercial video shooting to promote the restaurant on Uber. Social events to gather and share information between Uber and other restaurant holders	
Job design		Start or stop working whenever (at Uber eats), Displayed distance to restaurant and requestor (Deliveroo), Possibility to reject a request, can start working from any location of the city Uber is present at	Require crowd workers to use isolated bags for food delivery, possibility to offline from the app when it gets too busy	
Job engagement	Uber takes ownership of escalated situation between the actors	Take ownership of difficult situations and try to help,	Assist crowd workers with functionalities of the app,	Assist crowd workers to find the way to their address,

5. Discussion

The aim of this study is to find out what HR practices are used within the crowd sourcing ecosystem, especially for crowd workers and who is executing them. In form of an in-depth

explorative case study evidence of HR practices has been found at crowdsourcing meal delivering platforms. Figure 2 is an adapted version of figure 1 the conceptual model and includes the fourth member of the crowdsourcing ecosystem, namely the restaurant, which applies to this case study. Initially restaurants were not considered to be part of the research study, yet after the interview with the management board of Uber, became clear that restaurants are also part of the crowd sourcing ecosystem. Restaurants provide and receive a service from the other three members of the crowd sourcing ecosystem. For that reason, restaurants were also interviewed and became part of the research study as a fourth member. The table 3 above provides an overview of all four actors involved and the executed HR practices. In the following section the results are discussed and their alignment with the theory; theoretical and practical implications, so as limitations of this study and recommendations for future research and lastly the conclusion is made.

From the above figure and table can be concluded that the ability domain hardly exists. Attraction of crowd workers is done mainly in form of online advertisement, so as referrals through other crowd workers. There is a difference on how the crowd sourcing platform approaches different actors, especially crowd workers and restaurants. So, crowd workers are approached by advertisement via social media or local channels. While restaurants are approached in a more selective personal way, so the crowdsourcing platform Uber, research to find the top restaurants in the town they want to enter and personally go there to make an offer. When speaking of offer is meant the contract which determines the percentage the crowdsourcing platform will get per order. In a traditional way advertisement is also used depending on the required need of the employees, but nowadays also personal approach is used for the search of scarce workforce (Jiang et al., 2012). One overlapping aspect is the referral of crowd workers. The same concept is also used in the traditional setting and incentivise employees by using a referral for potential new employees (Van Hoye, 2013). The selection

procedure does not exist for crowd workers. As there is no discrimination, and everyone is welcome who fulfils the legal requirements, which are to be full age, have a valid passport (be able to work in the country) and have a smart phone to be able to use the app. Their selection procedure is called on boarding and has in the case of Uber an online test, which the crowd worker cannot fail in order to learn the functionalities of the app. Restaurants have a very selective selection procedure, which is based on the popularity of the restaurant. The popularity is measured based on third party websites, such as TripAdvisor or Booking.com. The crowdsourcing platform will select restaurants individually firstly based on popularity, secondly the cuisine they offer, thirdly the price range they are in and the location of the restaurant itself. When those requirements are fulfilled the crowdsourcing platform will approach the restaurant with an offer, individually. The selection procedure for restaurants is like a traditional selection procedure, which is also specific and selects potential candidates on several aspects. As several aspects need to be fulfilled and terms are negotiated. Development and training HR practices hardly take place within the crowd sourcing ecosystem, the focus is to have crowd workers and restaurants who can perform the required service. When considering the second part of the research question, by whom the HR practices are executed attraction is done mainly by the crowdsourcing platform and the crowd workers themselves through the referrals. Selection is done through the crowdsourcing platform, while training and development practices do not exist. From a traditional point of view the above mentioned HR practices would have been executed by a line manager or HR professionals, while in the crowd sourcing ecosystem crowd workers are also able to do the attraction part. According to Jiang et al. (2012) the ability enhancing domain is in place to determine the skills of a worker and the abilities in order to find a fit for the required tasks of the job and additional abilities. This aim is not present within the crowdsourcing ecosystem and shows a different goal, which is to simply to be able to execute the requested service. Another domain should be in place to

analyse, such as presence, in order to find existing HR practices used for crowd workers. A reason for it is the main goal is that crowd workers log in to the app and are present when needed.

Furthermore, the motivation enhancing domain is in place to provide incentives, performance appraisals and rewards in order to motivate employees (Jiang et al., 2012). Crowd workers do receive bonuses when they work for example on inconvenient times, or for their daily life at work, like bike rental or repair discounts on partnering shops. The idea behind it, is to make the daily life of crowd workers easier and assist in their struggles at work. Also crowd workers can receive a tip from requestors after a delivery. In terms of performance management each actor of the crowdsourcing ecosystem provides feedback to one another. For the algorithm to function properly and each actor to be aligned with the requested execution of the task (Lee et al., 2015). The crowd sourcing platform wants each member to be satisfied and stay part of the crowd sourcing ecosystem. In a form of total rewards, crowd workers and restaurants are invited to social events hosted by the crowd sourcing platform. Those events are hold for the purpose to inform restaurants about changes and functionalities in the app. For crowd workers it is more a form of incentive of feedback session. The incentives are mainly used to have a balance on the market and enough actors active at the same moment on the crowd sourcing platform. Especially in the case of Uber, the incentives are used to attract enough crowd workers at peak times. So, in other words, only for a specific moment and not in form of a long-term objective. So, the incentives are not used to improve performance, but to ensure that enough crowd workers are available and logged into the app. In the crowdsourcing ecosystem the motivation enhancing domain is in place to keep each member of the ecosystem happy and return again to the platform. As each member provides feedback to one another for their own needs and requirements, the crowdsourcing platform is only a communicator between the other members and oversees the whole loop of feedback exchange. An incentive system is in place, which

promises crowd workers some bonus when a certain number of orders is reached at a certain time or place. This condition is never fixed or can be foreseen, which makes it difficult for crowd workers to have an estimated fixed income. The motivational domain as used in a traditional setting, where the employee is motivated to perform better and strive for more is not present in the crowd sourcing ecosystem. The HR practices are used for the crowd worker to be present, which means logged into the app during peak times. The focus is to balance the market at this moment and have the algorithm function at all times, which does not give a long term perspective or a traditional feedback loop of a line manager to the employee (Jiang et al., 2012).

The last domain deals with opportunities in the way the job is designed and how far the engagement goes. Crowd workers have some empowerment at the crowd sourcing ecosystem. They can start working whenever and wherever they want at Uber's case and reject requests if it does not suit them. This is the way; the job design is presented to crowd workers. Yet, when considering that crowd workers need to be online at peak times and if there are too many crowd workers online, they do not receive any requests, this shows that the empowerment is limited indirectly. The restaurants can also go online or offline when it gets too busy for them. So, the actors within the crowdsourcing ecosystem have some empowerment to create their own job design daily. Yet are limited to the restrictions and are not empowered after all. Traditionally speaking, employees, usually have less empowerment and must follow instructions provided by their line manager usually, so they cannot reject a task as they wish, while crowd workers can. Also work instructions are provided in traditionally by the line manager, while in the crowdsourcing ecosystem the restaurants instruct the crowd workers how to transport the food e.g. in an isolated bag; the requestors tell the crowd worker where to drop off the food; while the crowd sourcing platform provides the navigation to the food drop off point. So all three members of the crowd sourcing ecosystem instruct crowd workers how to execute the task best

suiting to their wishes. This difference occurs from a legal perspective, as crowd workers are not employed by the crowdsourcing platform and therefore have more possibilities to pick and choose the desired job design. As a result, it makes it difficult to analyse the HR practices and compare them with the traditional employment. It is suggested to introduce a new HRM system which can be applied to the crowd sourcing ecosystem, in order to comply with the used HR practices and implemented by all four actors of the crowd sourcing ecosystem.

5.1 Theoretical implications

As already mentioned before, in a traditional setting a worker is employed by a company and HR practices are implemented by line managers or supervisors, in order to manage the workforce (Armstrong, 2007, p.8). As a result of this case study it is clear that crowd workers are self-employed and HR practices are provided between the four actors of the crowdsourcing ecosystem (How Uber works, 2019.). A theoretical implication is that in this case study the trait which is proposed by Breidbach & Brodie (2017) existing of the crowd worker, the requestor and the crowdsourcing platform cannot be applied. As a result of the analysis it is concluded that a fourth member, in this case study the restaurants are part of the crowd sourcing ecosystem and provide and receive HR practices. So, in conclusion third party members are also part of the crowd sourcing ecosystem and also need to be included and considered, as proposed in the figure 2.

In the traditional setting HR practices are used in a combination of so-called HRM systems, rather than implementing HR practices alone. Those HRM systems are focusing on the company goals and align with an internal fit to influence employees abilities, motivation and opportunity (AMO) (Delery and Shaw, 2001; Jiang et al., 2012). The AMO system was used in order to determine evidence of existing HR practices within the crowdsourcing ecosystem. From the discussion section it became clear that the AMO system does not apply to the crowdsourcing ecosystem, in other words it does not allow the researcher to examine

existing HR practices. The reason for it is, that HR practices within the crowdsourcing ecosystem are used for intentions such as the presence, order acceptance and job performance of crowd workers. As those crowd workers are freelancer and HR practices are in place to simply execute the requested task and be present as specific times, so as execute the task in a way as wished by the restaurant and requestor. The AMO system is in place to motivate employees to use their full abilities and provide opportunities for further development. In case of the crowd sourcing ecosystem those intentions are not in place, so as a result the AMO system cannot be used to analyse HR practices. This kind of setting cannot be analysed by the AMO system and should rather have instead of ability, motivation and opportunity, the domains job performance, order acceptance and presence.

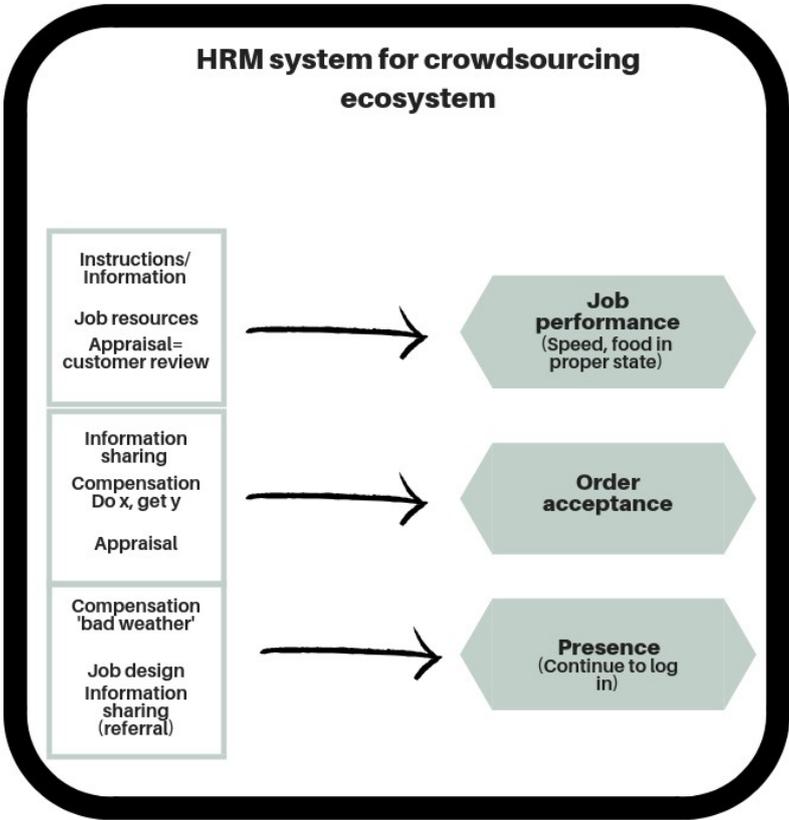


Figure 3 Proposition of an HRM system for a crowdsourcing food delivery platform

The figure 3 above includes the proposed domains, which make it possible to cluster the existing HR practices used within the crowd sourcing ecosystem for crowd workers. The first domain

presence, implies that crowd workers are logged in the crowd sourcing app at the peak times and are present when needed to execute the requested service. HR practices such as compensation, information sharing, job design (the possibility to accept or reject a request) and referral are present and can be categorized under that domain. Second, the domain order acceptance, has HR practices such as compensation (crowd workers get some incentive or a guaranteed earning, if accepting a certain amount of orders), appraisal (from restaurants to crowd workers and also the other way around), Information sharing (like the route or distance or the restaurant the order is from). Third the last domain job performance includes details about how the requested service should be executed by the crowd workers, for example the food should be delivered fast and in proper state. HR practices are present, such as instructions and information on how to transport the food (isolated bag is required by the restaurant), job resources (isolated bag, phone holder, jackets are provided by the crowd sourcing platform) and the appraisal (after the food is delivered by the crowd workers get a rating by the requestor and also gives one back). The proposed domains and categorized HR practices allow to researcher to see what HR practices are used and who is executing them in a crowdsourcing eco system for crowd workers. As the domains are named after their purpose of existence for the crowd workers and imply the three important aspects the crowd workers need to fulfil, such as be present, accept as many orders as possible and perform well when an order is accepted.

5.2 Practical implications

From the discussion and the theoretical implication part is understood that the used HR systems of traditional work relationships cannot be used to analyse the internal fit of a crowdsourcing platform with the used HR practices. As the HR practices are provided and received within all actors of the crowdsourcing ecosystem. When considering the second part of the research question, who is executing HR practices, is clear that all actors of the

crowdsourcing ecosystem provide HR practices to one another. One interesting part of it is that crowd workers also provide and receive HR practices. While in a traditional setting the employee is the receiver of HR practices and the line manager the provider, on which the AMO system was build upon. Also the intentions of identifying abilities of a worker, so as motivate them and provide opportunities are not present in the crowdsourcing ecosystem and rather only focuses on the current state of being present and log into the crowdsourcing app and accept as many orders as possible. When considering the crowd sourcing ecosystem in relation to crowd workers, several aspects appear. To begin with the technological advancement of the crowd sourcing app is changing rapidly and new features are constantly added or removed, while no training is provided to crowd workers. This can become an issue and might reduce the number of crowd workers available as crowd workers are uncertain and do not receive any clear guidelines or work instructions from the crowd sourcing platform. Some guidelines or information could be shared from the crowd sourcing platforms about several insurances, pension schemes, discounts on Dutch courses and law regulations of the country to provide crowd workers more certainty, while still not to be responsible for organising the pension and insurance but just to provide more information for crowd workers and partner up with schools or language centres to help crowd workers to develop if they want to. As there are already discounts provided for bike repairs and rentals, the language school discount could be an additional incentive to motivate crowd workers. In addition, the uncertainty of compensation, is also a sensitive aspect for crowd workers as there is no minimum rate that crowd workers get as a standard and that also changes constantly. So, in other words, there is no security of earnings for crowd workers, while some have this as their fulltime job, which can become challenging as requests are on demand and the compensation uncertain. A suggestion would be to implement a legal minimum rate for all crowd sourcing meal delivery platform, to promise some security for crowd workers and constrain the crowdsourcing platforms in their constant

changes. The legislation of a country plays a high role in the rules and restrictions of crowd workers. In order to overcome the exploitation of crowd workers, it is recommended to implement European laws, which apply to all countries in Europe to protect crowd workers in such work relationships and offer a more stable income and security in demand.

From the restaurant perspective, they do receive information about the functionalities of the crowd sourcing app and get to know how the crowd sourcing platform works in Uber's case for example even events are organized for restaurant owners. Yet restaurants also provide HR practices to crowd workers, but do not know how the work of crowd workers is organized. It would be of benefit to also inform the restaurants what is expected from crowd workers and what restaurants can expect or should instruct crowd workers to do, so the communication is transparent and a clear expectation from both sides is present, on one side from the crowd worker and on the other side from the restaurant.

5.3 Limitations and Future research

First, while conducting interviews with crowd workers became clear that there is a difference of the division between responsibilities. So, if responsibilities are divided differently, consequently HR practices are also executed by different actors of the ecosystem. It seems as different crowdsourcing platforms also have their own identity and offer slightly different conditions for crowd workers. In order to identify those differences, it would be interesting to interview and conduct research on all four members of the crowdsourcing ecosystem, within each of these platforms. As a result, each crowdsourcing platform, will present its own identity/values which are offered to the crowd workers and most importantly in relation with this research, an inside will be provided on what are HR practices are executed and by whom. This current study mainly focused on the crowdsourcing platform UberEats and some interviews with crowd workers from Deliveroo, were conducted yet not to the extent in order to have an

overview on the different conditions and the implications on HRM. While conducting the interviews the researcher asked questions from the three members of the crowdsourcing ecosystem and what HR practices are received or provided by the requestor in order to overcome this obstacle and read between the lines to identify potential HR practices there. Strictly speaking all four members of the crowdsourcing ecosystem should be interviewed, to know for a fact what HR practices are provided to or received from the requestor, as a recommendation for further studies.

Second, the questions which were asked during the interviews all were focused on the AMO system and were formulated specifically to identify the HR practices, which were clustered into the three domains. Prior to the fact that general questions, like how crowd workers are identified, on what abilities they have or how they are motivated or what opportunities they get those questions were not asked. While they might provide a deeper insight about some additional HR practices or wished practices for crowd workers. The researcher drew general conclusions based on the specific questions asked during the interviews which gave insights on the HR practices which were clustered into the three Domains. So in other words, even though general questions about abilities, motivation and opportunities were not asked, the detailed questions which were asked about each HR practice representing the three domains, assumingly overcomes this obstacle, yet cannot be guaranteed to its full extend.

Third, the technological advancement of those platforms is drastically changing and requires all members to adapt with it. While conducting interviews with crowd workers who just joined the crowd sourcing platform and the ones who have already been working for a while, a difference could be noted. As functions are added or removed from the app, also HR practices come and go with it. As for example, in the past crowd workers could not receive tip form the requestor with the app, but now they can. Also, many changes are planned in future, so the division of the HR practices will change as well. In the current study only focus on the latest

state of the app was made, so we do not know what HR practices were executed before and by whom they were executed, so as maybe some HR practices got added while others were removed or now are performed by another member of the ecosystem. Yet it would be interesting to see the development in time. In other words, a longitudinal study would provide a detailed overview of the technological advancement and its development within HRM, to show the changes and its implications with it. In case, by focusing only on one crowdsourcing platform, so for example Ubereats and analysing its development over time, a description of the most successful functions, in terms of HR practices can be made. So, the crowdsourcing platform could adapt its app and even discover best practices and eliminate some which do not have an impact on the crowdsource members.

6. Conclusion

After all, one main conclusion can be drawn that HR practices do exist within the crowdsourcing ecosystem and all four actors are providing them to one another. Partnering restaurants play an essential role in this matter and provide and receive HR practices. One essential difference between the HR practices is the selection procedure of crowd workers and restaurants. As crowd workers have nearly no recruitment or selection procedure, they only must fulfil the legal requirements. While restaurants have many aspects, which they need to fulfil, such as being popular in the town and offer a specific cuisine, price range and location. They are also approached in a personal, selective way and sign a partnering contract. Their feedback and performance are monitored and communicated personally by the crowd sourcing platform. In fact, a lot of attention is given to restaurants in comparison with crowd workers. This distribution of HR practices might origin from the legal constraints of country the crowd sourcing platform is operating in. As crowd workers are not employed by the crowd sourcing platform and are registered as freelancers. They receive less guidance from the crowdsourcing platform and receive feedback from the requestor and the restaurant, so as job design is highly

influenced by the restaurant of the crowd sourcing ecosystem. From the theoretical point of view the whole understanding of crowd sourcing changes as the trait proposed by Breidbach and Brodie (2017) existing of the crowd worker, requestor and crowd sourcing platform is not complete for the purpose of this study and resulted in another member the restaurant. This fourth member changes the existing crowd sourcing ecosystem of the trait and transforms is to a new ecosystem, which is visualized in figure 2. Restaurants also provide and receive HR practices and are an active partner of the ecosystem and even as mentioned above receive a more selective approach by the crowdsourcing platforms. So by generalizing the outcome, third party members within the crowd sourcing ecosystem need to be considered when analysing HR practices. As they also might receive or provide HR practices.

Next, the AMO system which was used to identify HR practices cannot be used for the crowd sourcing ecosystem. While trying to find evidence of HR practices which represent the domains ability, motivation and opportunity, became clear that those domains do not exist within the crowdsourcing ecosystem and other domains need to be in place. A proposition of a HRM system for crowdsourcing is made, which fulfils the requirements of the crowd sourcing concept namely, to be present and logged into the app when needed, accept as many requests as possible and perform well I accordance by the wishes of the crowd sourcing members. Those new domains serve the purpose of existing HR practices within the crowd sourcing ecosystem.

Recapturing the main research question: *Which HR practices are used to manage crowdsource workers and who is implementing and executing them?*-Is answered and shows that all four actors of the crowdsourcing ecosystem provide HR practices to one another. Due to legal constrains, the actors such as the restaurants receive more HR practices from the crowd sourcing platform, while the crowd workers receive HR practices from restaurants, requestors and the crowd sourcing platform. With the new proposed HR system for crowd sourcing the

understanding of the traditional HR changes and brings new purposes in place, as already mentioned above.

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IV- Appendices

Appendix A

Table 3 Interview questions to crowd worker, crowdsourcing platform and restaurant

Subject	Crowd worker, crowdsourcing platform, requestor
Introduction	<p>Can you tell a little bit about yourself?</p> <p>What were your personal reasons to work for/with such platform?</p> <ul style="list-style-type: none"> - Additional income - Exploration of the concept to create your own in future - Flexibility/ Independence - Competition pressure
Additional questions, which have no direct relation to HRM	<p>If you had the chance to give feedback, what would you tell?</p> <p>What is in particular very good about the platform? Can you tell the differences that you experience across the platforms?</p> <p>What was the most interesting situation/story you experienced, while working for/with the platform?</p> <p>Can you think of anything else, that you would like to mention and was not asked yet?</p>

Ability enhancing HR practice questions:

Concept	Interview questions
Recruitment	<p><u>Crowd worker</u> How did you learn about the platform? Why did you decide to work for the platform? How did you learn about the required qualifications? Who communicated those qualifications to you?</p> <p><u>Crowdsourcing platform</u> How do you identify potential workers? How do you convince potential workers to apply on your platform? What qualifications are required to become a member of the platform? What attributes do you communicate about the organization? Which attributes are communicated to whom?</p> <p><u>Requestor</u> How did you learn about the platform? How did you become a member of the platform? What qualifications do you need to fulfil to become a member? Who communicates to you the qualifications required?</p>
Selection	<p><u>Crowd worker</u> How do you find out if you are accepted or rejected for the applied position? Who do you receive the information from?</p> <p><u>Crowdsourcing platform</u> Which criteria do you use to select from all applicants? Who do you reject (based on what criteria)? Who communicates the acceptance or rejection? Who checks if the requested requirements (documents e.g. passport) are met? How is the authenticity of the information given by potential applicants confirmed?</p> <p><u>Requestor</u> How are you informed if you are accepted or not? Who communicates to you if you are accepted?</p>
Training	<p><u>Crowd worker</u> Do you receive a training or some kind of learning is required before you perform the job? Who informs you about the additional skills or knowledge required for the present job?</p> <p><u>Crowdsourcing platform</u> Do crowd workers need to learn skills for the required job? Is the crowd worker able to obtain the required skill on the platform? Who communicates that to the crowd worker?</p>
Development	<p><u>Crowd worker</u> Do you have the opportunity to learn new skills beyond your current job? Who informs you about such opportunities?</p> <p><u>Crowdsourcing platform</u> Do crowd workers get the opportunity to learn skills beyond the current job? Can crowd workers be promoted for a long-term focus of the organization? Is the learning of crowd workers monitored?</p>
Motivation enhancing HR practice questions:	
Performance management	<p><u>Crowd worker</u> Are you assessed based on your performance or productivity? – If yes, how?</p>

	<p>Who communicates the assessment to you?</p> <p><u>Crowdsourcing platform</u> Are crowd workers monitored based on their performance e.g. productivity? What organizational processes are used to assess the productivity? Who communicates the assessment to the crowd worker?</p>
Performance appraisal	<p><u>Crowd worker</u> Is someone evaluating/reviewing your work performance? Who is communicating your evaluation/review to you? How is the evaluation/review communicated to you?</p> <p><u>Crowdsourcing platform</u> How crowd workers are evaluated/reviewed based on their performance? Who evaluates/reviews crowd workers? In what way to you receive your evaluation/review?</p> <p><u>Requestor</u> Are you able to evaluate/review the service you receive? In what manner can you evaluate/review the service? Who do you communicate the evaluation/review to?</p>
Total reward	<p><u>Crowd worker</u> Do you receive an additional reward, based on aspects, such as good performance, above expectance company earnings? Do you receive any other reward, except your salary? Who communicates that news to you? How are they communicated e.g. via E-mail, phone, meeting?</p> <p><u>Crowdsourcing platform</u> Are crowd workers receiving an incentive/ reward for good performance? How do crowd workers receive it? Who provides the incentive/reward to crowd workers?</p> <p><u>Requestor</u> Is there a possibility to provide an incentive for good performance of requested service? How do you provide the incentive/reward? Who do you provide the incentive/reward to?</p>
Opportunity enhancing HR practice questions:	
Job design	<p><u>Crowd worker</u> Do you have the possibility to give suggestions about methods in your task to the platform? Who can you communicate those suggestions to? Who communicates to you about the processes and methods related to your task? How are those processes and methods communicated?</p> <p><u>Crowdsourcing platform</u> Who communicates the methods and processes used on the platform to crowd workers? In what way are the methods and processes communicated? Do crowd workers or requestors have the possibility to provide suggestions to methods/ processes? – If, yes how? To whom?</p> <p><u>Requestor</u> Do you have the possibility to provide suggestions to existing processes/ methods used by the crowd worker or the platform? How do you provide those suggestions? Do you the possibility to decide on the methods the requested task is performed?</p>

	How and to whom do you communicate those methods?
Job engagement	<p><u>Crowd worker</u> Who determines your working schedule? Do you have the autonomy to make your own choices during the task performance? Do you have to inform someone about the choices made? If so, who?</p> <p><u>Crowdsourcing platform</u> Are crowd workers able to involve in efforts besides the requested task? Are crowd workers encouraged to use their own brainpower or energy during an exceptional situation, while performing the requested task? Who communicates those possibilities to crowd workers?</p>

Appendix B

Table 4 *Coding scheme deductive coding*

HR domain	HR practices/ codes	Definition	Sub-codes
Abilities	Recruitment	“Process of attracting individuals on a timely basis, in sufficient numbers, and with appropriate qualifications to apply for jobs with an organization.” (Wayne Dean Mondy, R. Martocchio, 2015)	Job advertisement Job application Qualifications Attraction
	Selection	“Process of choosing from a group of applicants the individual best suited for a particular position and the organization.” (Wayne Dean Mondy, R. Martocchio, 2015)	Acceptance Rejection Skills Knowledge Requirements Documents
	Training	“Activities designed to provide learners with the knowledge and skills needed for their present jobs.” (Wayne Dean Mondy, R. Martocchio, 2015)	Additional knowledge Additional skills
	Development	“Learning that goes beyond today’s job and has a more long-term focus.” (Wayne Dean Mondy, R. Martocchio, 2015)	Growth opportunity Higher position
Motivation	Performance management	“Goal-oriented process directed toward ensuring that organizational processes are in place to maximize the productivity of employees, teams, and ultimately, the organization.” (Wayne Dean Mondy, R. Martocchio, 2015)	Rating Performance Supervision Feedback

	Performance appraisal	“Formal system of review and evaluation of individual or team task performance.” (Wayne Dean Mondy, R. Martocchio, 2015)	Monetary reward None-monetary reward Evaluation
	Total reward	“Definitions of total reward typically encompass not only traditional, quantifiable elements like salary, variable pay and benefits, but also more intangible non-cash elements such as scope to achieve and exercise responsibility, career opportunities, learning and development, the intrinsic motivation provided by the work itself and the quality of working life provided by the organization.”(Armstrong, 2007)	Payment Salary Incentive Company events Colleague contact
Opportunities	Job design	“Process of determining the specific tasks to be performed, the methods used in performing these tasks, and how the job relates to other work in an organization. “ (Wayne Dean Mondy, R. Martocchio, 2015)	Job design Rules Restrictions Responsibilities Autonomy
	Job engagement	“The extent to which employees put discretionary effort into their work, beyond the minimum to get the job done, in the form of extra time, brainpower or energy.” (Towers, 2008)	Additional effort Commitment

Crowdsourcing ecosystem members	Definition	Codes
Crowd sourcing platforms	“Crowdsourcing can be defined as an act of outsourcing a task by a requestor in form of an open call to a crowd (undefined large group of people, the crowd worker), through a crowdsourcing platform.”	Uber Foodora Deliveroo
Crowd workers	“Crowd-work is defined as the performance of tasks online by distributed crowd workers who are financially compensated by requesters (individuals, groups, or organizations).” (Kittur et al. 2013, p. 1) Yet in this study the crowd worker is an individual who provides a service and not tasks online to a requestor.	Crowd worker
Requestors	Requestors request a service through an open call on the crowdsourcing platform to be performed by an undefined crowd worker.	Requestor

Appendix C

Table 5 *Coding scheme inductive coding*

HR practices/ codes	Definition	Sub-codes
Restaurant	Is the fourth member of the eco system, who also provides HRM practices to the other three members.	Restaurant