National Institutions and Platform Evolution in the European Gig Economy

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Cover design & lay-out: Publiss | www.publiss.nl
Print: Ridderprint | www.ridderprint.nl

National Institutions and Platform Evolution in the European Gig Economy

Nationale instituties en platformevolutie in de Europese kluseconomie
(met een samenvatting in het Nederlands)

Εθνικοί Θεσμοί και Εξέλιξη της Διαδικτυακής Πλατφόρμας στην Ευρωπαϊκή gig economy

(με περίληψη στα Ελληνικά)

Proefschrift

ter verkrijging van de graad van doctor aan de
Universiteit Utrecht
op gezag van de
rector magnificus, prof.dr. H.R.B.M. Kummeling,
ingevolge het besluit van het college voor promoties
in het openbaar te verdedigen op

vrijdag 23 juni 2023 des middags te 12.15 uur

door

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Dit proefschrift werd (mede) mogelijk gemaakt met financiële steun van Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO) Vidi-beurs nummer 452-17-017.

This doctoral thesis is dedicated to my Parents, Georgios and Evgenia, whose unfaltering love, support and care throughout my life is behind my every achievement. To them I owe not only my *"ζην"* but also my *"ευ ζην"*.

I would also like to dedicate this thesis to the memory of my Grandparents, Nikolaos and Foteini Koutsimpogiorgou, and Grigorios and Georgia Mentaki, who struggled in times far more difficult than ours, for us to have a good life. To them I owe much.

Θα ήθελα να αφιερώσω αυτήν την διδακτορική διατριβή στους Γονείς μου, Γιώργο και Ευγενία, των οποίων η αγάπη, υποστήριξη και φροντίδα μου επέτρεψε να πετύχω τα πάντα στην ζωή μου. Σε αυτούς οφείλω τόσο το *"ζην"* όσο και το *"ευ ζην"*.

Και θα ήθελα επίσης να αφιερώσω αυτήν την διατριβή στην μνήμη των παππούδων μου, Νικόλαου και Φωτεινής Κουτσιμπογιώργου, και Γρηγορίου και Γεωργίας Μεντάκη, οι οποίοι σε εποχές πολύ πιο δύσκολες από την σημερινή, αγωνίστηκαν για να έχουμε εμείς μια καλή ζωή. Σε αυτούς οφείλω πολλά.

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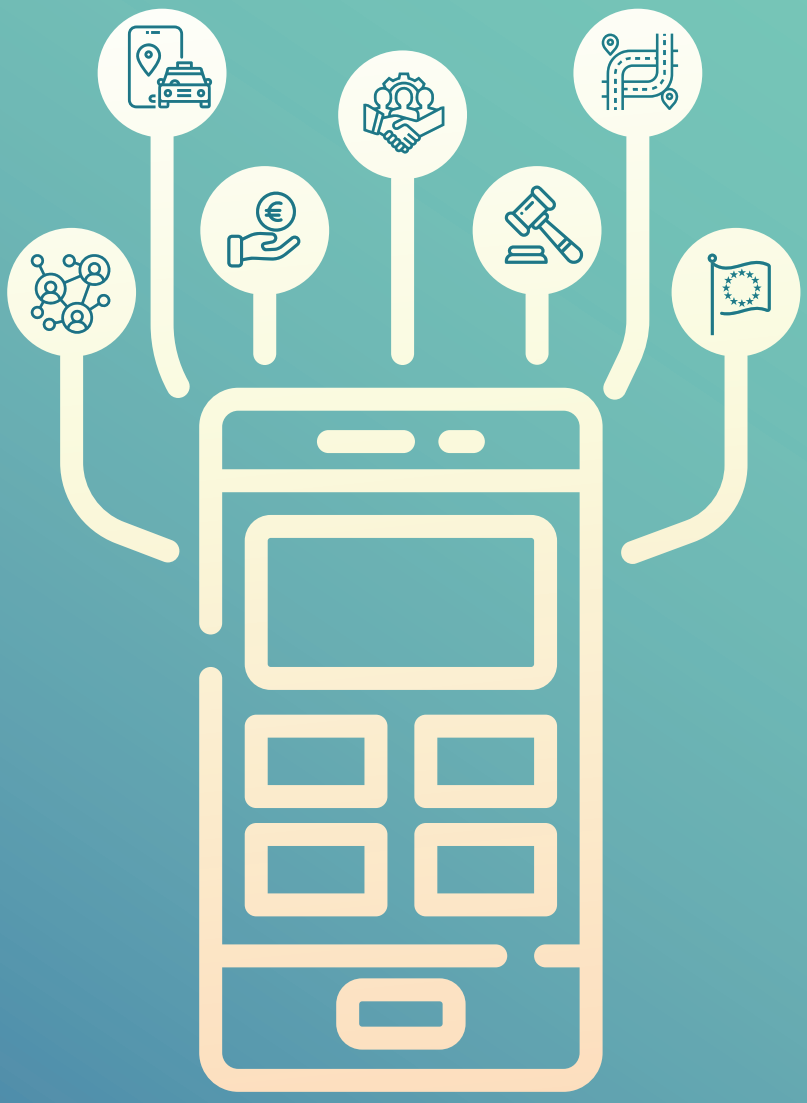


CHAPTER 1

Introduction

1.1 Introduction

Digitalisation transforms many aspects of our economic, social and political life. Originally applied with the aim achieving higher productivity through the optimisation of the means of production, digitalisation now extends far beyond its primal field, reshaping the way that we exchange information, goods and services, and even the way we socialise and form human relationships.

A particularly noteworthy aspect of digitalisation is the introduction of internet platforms. Platforms act as online intermediaries in social and economic interactions, often through the use of apps (Kenney & Zysman, 2016). They are characterised by a wide diversity in their shape, form and role, stretching all the way from open innovation and collaboration platforms to social media and sharing economy platforms. Within the broader universe of platforms, a particular subsection takes the form of online peer-to-peer marketplaces which matches job requesters with available workers in sectors such as microtasking, programming, transportation, domestic work and other.

Those platforms are commonly referred to as the "gig economy", constituting an ever-growing section of the labour market (Vallas & Schor, 2020). Overall, gig economy platforms can be divided in two broad categories: namely online and onsite platforms. Online platforms operate exclusively in the digital space as they transact tasks that are not location-specific, such as design jobs and computer programming tasks. Onsite platforms on the other hand, operate in the physical space as they focus on the provision of physical services, such as urban transportation, food delivery, cleaning, or elderly care – to name just the most frequent ones.

In their most basic form, gig economy platforms act as intermediaries between gig requesters and workers. Along with those two, they form a triangular relationship where requesters and workers interact through the platform. Effectively, the platform establishes three contractual agreements. The first is between the platform and the gig requester who wish to gain access to a pool of workers. The second is between the platform and the worker, defining the conditions under which the latter is allowed to receive gigs through the platform. And, thirdly, a contractual agreement between the gig requester and the worker for the execution of a specific task (De Stefano, 2016). Depending on the exact business model of the platform, each of those contractual relationships could take a different form, with either the gig workers or the requesters (or neither) being defined as clients or partners of the platform. In either case, platforms reserve for themselves the role of the intermediary, often regardless of the degree of actual control they exercise over the transaction. The exact definitions are described in a platform's Terms and Conditions which acts as their self-edited contractual framework (De Stefano & Aloisi, 2018).

The lack of clear terminology forms the linguistic basis for legal ambiguity, which is particularly evident on the issue of the employment status of gig workers.

Gig economy platforms do not hire their workers as employees, but rather employ them as "independent contractors". At the same time, gig workers lack many of the freedoms associated with freelancing (De Stefano & Aloisi, 2018). For example, the matching with requesters is performed through algorithms, while gig workers are subjected to forms of algorithmic management such as performance metrics and client reviews. As algorithmic processes are often inaccessible or unknown to workers, the latter can be arbitrarily subjected to sanctions for violations or even exclusion from the platform with little recourse.

This thesis contributes to addressing one of the most prominent debates surrounding the platform economy: namely, the lack of formal employment status and the consequences that this has for gig workers. Gig workers often find themselves excluded from access to traditional labour rights, which are linked to employment. In the online gig economy, where platforms facilitate cross-national transactions between gig workers and requesters, national institutions lack the ability to effectively enforce regulations on employment (van Slageren, 2023). This is different for the onsite gig economy as gig requesters and workers here interact directly, in the physical space, when the latter provides services to the former. The physical aspects of onsite gig transactions combined with their location within the same legal enforcement territory, imply that the regulatory issues surrounding the employment status of gig workers are more salient in the onsite than in the online gig economy. This thesis therefore focuses on onsite rather than online gig economy platforms.

Empirical case studies on gig economy platforms indicate that different regulatory issues are prevalent in different countries, even in relation to the same platform (Thelen, 2018; Uzunca et al., 2018; Pelzer et al. 2019; David & Sinha, 2021). These country differences stem from diverse institutional frictions and result in different regulatory responses. In this regard, it is noteworthy that many gig economy platforms were founded in the United States in the end of the 2000s. While facing a mostly seamless diffusion across the United States, gig economy platforms operating under the "American" platform model struggled to establish themselves in European countries. These institutional frictions have been attributed to the variety of national institutions and local level regulations in Europe – especially with regard to labour law and service industries (Thelen, 2018).

In particular, European labour markets exhibit a higher degree of employment protection compared to the United States, thus challenging the application of the "self-employed" model for platform workers. Due to the latter, the issue of correct employment classification has been the focal point in the academic and political debates surrounding the gig economy in Europe (De Stefano, 2015). Here, the key questions revolve around the status of the platform as an e-commerce company or as a sectoral participant, and around the status of gig workers as self-employed individuals or employees of the platform (De Stefano, 2015). The first issue about the platform's status has important consequences for the

legal obligations regarding its users and the sectoral regulations that may, or may not, apply. The second issue concerning workers' status bears fundamental consequences for the workers in terms of their rights (e.g., to unionize, to appeal against dismissal), income (e.g., minimum wage) and related benefits (sick leave, holiday allowance, pension, et cetera) (Aloisi, 2015).

Within the European context, though, platforms often need to navigate a multitude of laws and regulations, which "moulds" their business model over time. Depending on national labour regulations, countries may differ both in the classification of gig workers and in the sectoral regulations that apply. Given these varieties of institutions, one may expect different degrees of adaptation by platforms to national contexts, depending on the similarity of labour and sectoral agreements with the corresponding U.S. institutions.

In an early study on the interplay between national institutions and onsite gig economy platforms, Thelen (2018) examined the introduction and subsequent response towards the taxi platform Uber in three countries with a very diverse institutional profile, namely Germany, Sweden and the US. Despite the almost identical nature of Uber's business model and *modus operandi* in these three countries, she observed that relevant stakeholders in Germany, Sweden and the US responded differently to the entry of Uber, where diverse points of institutional friction resulted in the formation of different coalitions eventually leading to diverse regulatory outcomes (Thelen, 2018).

In Germany, where the taxi industry was heavily regulated prior to the introduction of Uber, national organisations of transportation providers formed a coalition with local transportation authorities, with the aim of stopping the platform's expansion before it could gain a foothold across the country. They spearheaded a legal and political campaign against the platform, which they framed as a defence of legality against unfair competition from a powerful company. Local and state courts ruled in their favour, effectively banning the platform from operating its unlicenced driver's model in Germany (Thelen, 2018).

In Sweden, on the other hand, Uber found a less regulated taxi market which allowed for a less controversial roll-out, resulting in attracting drivers and passengers. Nevertheless, Uber failed to comply with regulations on proper taxation of earnings of its drivers. As the Swedish welfare state is based on taxation, Uber's compliance failure became a salient point, resulting in the criticism that Uber's competitive advantage resulted from tax evasion, at the expense of broader societal interests. Tax authorities, trade unions and traditional taxi companies united in their criticism of Uber, which resulted in litigation against Uber drivers and changes in the taxi industry in order to better accommodate platform technology while upholding the Swedish welfare model (Thelen, 2018).

In the US, where the platform was originally launched, it was Uber rather than its competitors who managed to form effective coalitions and frame the debate

in its favour. Faced with a highly regulated local taxi industry, Uber marketed itself as the anti-monopolistic, competitive option and campaigned aggressively for the deregulation of the transportation industry. In most cases, politicians and transportation officials sided with Uber, creating the necessary regulatory space for the company to operate. Given that access to social security derives from employment status in the US, the issue of employment misclassification became salient and a focal point for criticism, but with little overall recourse to the company (Thelen, 2018).

The wide diversity of responses to the introduction of platforms at a global level reflects the diversity of institutional configurations across countries, which force platforms to adopt different coping strategies in order to survive. Interestingly though, even between countries with similar socio-economic conditions and institutional configurations, one can observe significant diversity. As it is evident from the case study by Thelen (2018) on Uber, even countries with similar political-economy regimes will manifest different points of friction, based on the type and degree of disruption caused by gig economy platforms within the country's broader institutional framework. Germany and Sweden are both developed economies with significant degrees of industrial coordination and extensive welfare states. Nevertheless, Uber was swiftly banned in Germany, while Sweden's previous liberalisation of the taxi sector provided a more fertile ground for Uber to establish its business.

Thelen's (2018) work set the stage for a broader examination of how institutional differences shape the gig economy, a phenomenon originally considered to be immune to institutional forces and transcendent to borders (van Slageren et al., 2022). Further research explored how the degree of institutionalisation effects platform adaption strategies and leads to diverse institutional outcomes. Uzunca et al. (2018) looked at Uber in Egypt, the Netherlands and the United Kingdom. They found that the degree of institutionalization of the pre-existing taxi market shaped the platform's legitimization strategy as well as institutional outcomes. Upon entering a country with lower levels of formal institutionalization, such as Egypt, Uber was able to leverage its efficiency in addressing societal challenges (such safety in transportation) in order to increase its legitimacy and shape the institutional environment to its favour. Opposingly, in countries characterised by higher degrees of institutionalisation, such as the UK, Uber's combative approach brought the platform at odds with incumbent institutions (such as trade unions) resulting in a legitimacy failure and Uber's ban.

The case study by Pelzer et al. (2019) on Uber in The Netherlands also found that the institutionalization of existing taxi companies, using advanced compulsory taxi meters, provided a barrier for Uber to get its unlicensed drivers legitimised, resulting in lost court cases. In their study on Uber, Davis & Sinha (2021) move a step further by suggesting the existence of "Varieties of Uberisation" amongst different countries that experienced the introduction of a transportation platform,

diverse pre-existing institutional arrangements result in diverse organizational outcomes. Complementing Uzunca et al., (2018), they find that, while ride hailing platforms in highly institutionalised countries acted in a disruptive way, in less institutionalised countries (e.g. Nigeria, Indonesia). they developed auxiliary services for their drivers (such as financing schemes and local offices)

As literature indicates, institutions and gig platforms are characterised by a constant interplay which leads to diverse adaptation outcomes amongst countries. Nevertheless, little is known of the exact effect institutions have on those platforms beyond a few specific case-studies, and more importantly which institutions do actually have an effect in the first place. What is more, most of the existing research focuses on the *ex post* institutional effect, meaning what follows a platforms' entry into a market. On top of that, very little is known about the effect of institutions on gig platforms during their whole life course, particularly its early stages of creation and internationalisation. With this thesis, my aim is to investigate the exact institutional conditions that shape gig economy platforms. The findings will contribute to the burgeoning gig economy literature, and lead to a better understanding of institutional influence on digital innovation and digitalisation transformation. To that end, I formulate the following overall research question of this thesis:

How are onsite gig economy platforms affected by national institutions?

1.2 Theoretical framework

Almost all gig economy platforms are start-ups backed by venture capital. Thus, one literature strand that informs my studies of onsite gig economy platforms is entrepreneurship research.

While gig economy platforms come in a variety of shapes and sizes, they share the propensity for quick expansion across borders and markets. Research in the field of International Business has identified such enterprises as Born Globals, which are defined as "business organizations that, from or near their founding, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries'' (Knight and Cavusgil, 2004, p. 124). In contrast to traditional multinational companies, where internationalization follows a process of strong domestic growth and resource accumulation, Born Global startups build their strategy on early expansion, often within the first three years of their existence (Lopez et al., 2009).

One major finding regarding Born Global startups is that these are often found in technology-intensive industries, rather than in traditional manufacturing industries which abide by the standard model of incremental expansion (Paul & Rosado-Serrano, 2018). As innovative startups, Born Globals have only limited resources at their disposal (Zander et al., 2015).,but, what they lack in size and

resources, they make up for in agility and flexibility (Autio et al., 2000), and increased efficiency in resource allocation (Cavusgil & Knight, 2015).

Many of the newly established gig economy platforms are effectively "Born Global" startups (Zalan, 2018; Punt et al., 2021). Accordingly, gig economy platforms also adopt an "asset-light" model, where the provision of the necessary resources for the execution of tasks (including the purchase of equipment) falls upon the gig workers. The platform model enables those companies to focus on their core operations of developing software to match gig workers and clients, thus supporting a born-global strategy as software can be easily replicated across borders. In doing so, platform companies create economies of scale , characterized by rather high fixed cost in development but very low variable costs in replication across borders.

Nevertheless, gig economy platforms are not completely independent from the context in which they operate, and their expansion is not as frictionless as some scholars originally predicted (Surandarajan, 2016). While online platforms often neglect local regulations during the entry phase (Kenney & Zysman, 2016), regulators have become increasingly active in bringing gig economy platforms, and their users, under existing sectoral and labour regulations that apply in their territorial context. Hence, even if the online intermediation service of a platform is, technically speaking, perfectly replicable across national borders at low marginal costs, platforms may still face specific regulatory challenges depending on the national context in which they are active. Hence, the Terms and Conditions (T&C) and underlying business model of a universal platform with a fully standardized software may prove incompatible with national or local regulations. This, in turn, forces a platform to adapt its born-global strategy by taking into account the national regulatory specificities of the various countries in which the platform operates (Thelen, 2018).

To understand the nature of institutional frictions between gig economy platforms and national institutions, one can examine the platform's modus operandi, juxtaposing the latter with the characteristics of a traditional corporation. One thereby finds that a key difference between platform and traditional companies lies in the way that platforms manage their workforce. Here, the novelty of platforms lies in their capacity to activate and manage a workforce which the platform does not formally employ (Frenken & Fuenfschilling, 2021). In contrast to traditional companies, managerial control is achieved through algorithmic management, reviews and self-accreditation, which bypass traditional institutional modes of quality control through formal certificates and enforcement agencies. Thereby, the platform effectively dis-embeds itself from traditional national institutions and it becomes re-embedded within its self-created institutional context, expressed in its terms and conditions (Grabher & Van Tuijl, 2020).

From an "Institutional Logics" perspective (Thornton et al., 2012), gig economy platforms can therefore be conceptualised as a new organizational form combining the "corporation" and "market" logic in a new way (Frenken et al.,

2020). Following the "corporation logic", platforms control their gig workers through the imposition of a set of rules, surveillance and client reviews, thereby limiting the workers' entrepreneurial freedom. Simultaneously, by treating gig workers as independent contractors who make use of their intermediation services as paid users, platforms also incorporate the "market logic" in their interaction with the gig workers.

Next to the entrepreneurship literature, the "Varieties of Capitalism" (VoC) framework offers the second major theory strand that informs this thesis. The VoC framework examines the effect of national institutions on private enterprises, thus offering a particularly parsimonious and, hence, useful theoretical approach to understand these institutional differences(Hall & Soskice, 2001, Hancké, 2009). As discussed in the previous section, the new capacity of gig economy platforms to effectively manage a workforce without formally employing it has evoked different institutional reactions in different countries. These varying responses have been related to the institutional differences in these countries. The VoC theory is based upon the premise that Western economies exhibit substantial organisational differences and export specialisations, which result from diverse socio-economic institutional configurations. Placing the corporation at the centre of its analysis, the VoC approach examines how enterprises draw on national institutional resources in their effort to solve coordination problems in order to be successful in different types of innovations. Thereby, the literature focuses on five institutional areas, namely industrial relations, training and education of the national workforce, corporate governance and access to finance, interfirm relations and management of employees.

In their seminal work, Hall & Soskice, (2001) identified two main ideal types of institutional configurations: Coordinated Market Economies (CMEs) and Liberal Market Economies (LMEs). In LMEs, firms coordinate through hierarchies and competitive market arrangements, where actors respond to price signals for supply and demand of goods and services. LMEs are characterized by weak labour market regulation, low levels of social security support, and little involvement of unions in the social dialogue (as exemplified by Ireland, United Kingdom, United States). In CMEs, on the other hand, firms coordinate their activities through non-market relationships, built within a nexus of more collaborative relations. CMEs are characterized by moderate state regulation, high levels of social security support, and strong involvement of unions in the social dialogue across all sectors (e.g., Austria, Germany, the Netherlands).

Some countries, however, do not fit neatly into either of these two categories. Southern European countries especially fall somewhere in-between with varying degrees of state regulation, social protection and union participation. France, for example, is a country that exhibits strong (albeit weaking since the 1990s) state regulation, high levels of social security, and strong involvement of the unions in the social dialogue within selected sectors. That is why it has been regarded

as a third variety of 'state-enhanced' capitalism (Schmidt, 2003). As a response to EU enlargement in Central and Eastern Europe in the mid 2000's and to closer integration of their economies with those of Western Europe, scholars expanded the framework to include post-soviet economies, coined Dependent Market Economies (Nölke & Vliegenthart, 2009). Although most are characterised by strong state regulation, low social security support, and low levels of union involvement, some have come much closer to standard Liberal Market Economy model.

Given these Varieties of Capitalism across Europe, one may expect different ways and degrees of adaptation by platforms to national institutions as they expand their operations across borders (Hassel & Sieker, 2022). In LMEs, where labour market flexibility is institutionally supported by flexible contracts and universal welfare, gig economy platforms may feel little pressure for adaptation of their standard business model, which is based upon the employment of workers as independent contractors. By contrast, in CMEs with higher levels of regulations and social security, platforms may experience more adaptive pressure upon their business model.

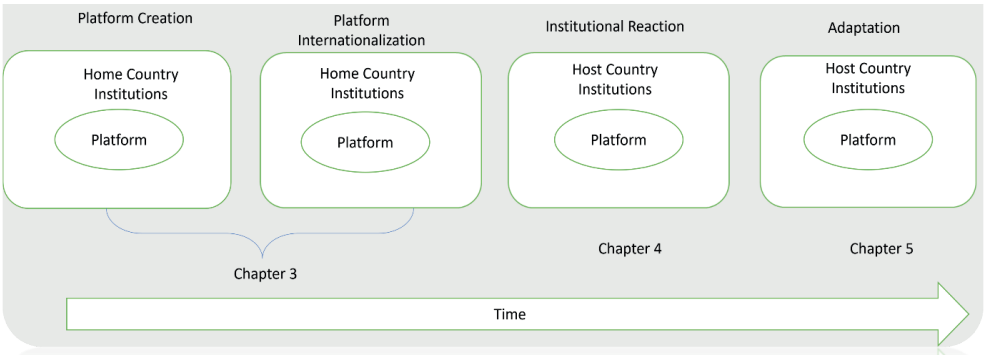
Nevertheless, it is important to emphasise the analytical limitations of the classic VoC literature with regards to the gig economy. Importantly, the VoC theory was developed in order to understand how national institutions affect established firms in industrial manufacturing sectors and shape their competitive advantage in exports markets. That contrasts with the onsite gig economy as the latter is centred upon start-up companies operating in onsite service sectors such as taxi, food delivery, domestic cleaning and care. Hence, given the differences between industrial manufacturing and onsite services sectors, the VoC theory may not apply well to service sectors in which gig economy platforms operate. In the service sectors in which onsite gig economy platforms tend to operate (taxi, delivery, domestic cleaning, odd jobs, care), competition is local and unionization rates tend to be lower, with workforce characterised by "dualization" as workers with more general skills tend to enjoy less job security (Benassi, 2016). What is more, these service sectors tend to be characterised by a high prevalence of undeclared labour and weak enforcement of economy-wide and sectoral regulations (Thelen, 2018; Walker, 2020). It has thus been argued that, in the empirical context of the gig economy, the framework of Varieties of Capitalism has only limited predictive power (Thelen, 2018; Doellgast & Marsden, 2019; Ilsøe & Larsen, 2021). Nevertheless, the VoC framework can be used as a heuristic device to understand the type and form of institutional frictions and the platforms' adaptation strategies. In conclusion, it is therefore reasonable to assume that one can observe more complex patterns in the onsite gig economy than the simple distinction between the ideal types of 'Liberal' versus 'Coordinated' versus 'State-enhanced' Market Economies.

1.3 Structure of the thesis

The aim of this dissertation is primarily to determine the various effects of the institutional environment on gig economy platforms and their regulation. As most gig economy platforms are start-up companies looking for rapid growth backed by venture capital, I am further interested in how institutions affect the development of gig economy platforms during the early stages of their development, including their founding, their internationalisation, their subsequent clashes with institutions in various national contexts and, finally, their adaptation and survival. Following a four-stage model, as depicted in Figure 1.1, my research examines first how institutions affect the process of platform **creation** and subsequent **internationalisation**. These two processes are closely interconnected, both temporally and causally, as gig economy platforms are created with the aim to quickly expand their operations shortly after their creation in order to gain a market foothold and enjoy economies of scale in the use of their algorithmic software (Parente et al., 2018). While they may face little obstacles during their roll-out and entry into a new market, platforms will subsequently find themselves faced with the challenge of dealing with national institutions which are potentially radically different from their home-country institutions or institutions which are incompatible with an aspect of their business model. Either case results in institutional frictions prompting **institutional reactions** by different actors, including incumbents, regulators and unions, in an attempt to assert their position through the enforcement of existing laws and regulations (Kostova & Zaheer, 1999). Faced with institutional pressure, platforms then have one of three options: to exit the market; to continue their operations against mounting institutional opposition; or to **adapt** their business model in a way that eases institutional friction and facilitates compliance. The latter choice allows them to continue operating with a revised business model, even if it undermines growth and undercuts profits.

Following this model, I structured the thesis in four chapters:

Figure 1.1: National institutions and platform evolution: structure of the thesis



Chapter 2:
Conceptualising the Gig Economy and its Regulatory Problems.

Before delving into empirical studies, the starting point of my research is an exploration of basic theoretical concepts and definitions of the gig economy in Chapter 2. Due to the novelty of the phenomenon and a lack of clear conceptualisation, previous studies have failed to produce comparable results even on basic aspects of the gig economy, such as its size and depth. I therefore conceptualise the gig economy along four basic dimensions, namely online vs offline intermediation, independent contractor vs platform employee, paid vs unpaid labour, and, finally, provision of service vs goods. I argue that each of these dimensions is a continuum rather than a dichotomous concept, which can translate into diverse conceptualizations of the gig economy. Adopting the narrowest definition, the gig economy can be defined as "ex-ante specified paid tasks carried out by independent contracts mediated by online platforms". Nevertheless, as definitions can be broadened along each of the four dimensions, broader definitions are defendable depending on one's research topic. Furthermore, I argue that each of these four dimensions is directly related to a respective regulatory question, namely (1) how should platforms be classified and regulated; (2) how paid and unpaid labour ought to be considered; (3) what the employment status of gig workers is; and (4) whether earnings through gig work should be regulated differently than those from asset exploitation.

Chapter 3:
The Geography and Internationalisation of Gig Economy Platforms in Europe.

Chapter 3 presents the first empirical study, where I explore how national institutions affect gig economy platforms in their early stages and, more specifically, how these institutions influence platform founding and subsequent cross-border expansion of on-location platforms. Building on the CEPS dataset of European platforms, I collect further data on their founding location and subsequently use Negative Binomial regressions to test for the effect of geographical and institutional factors on the probability of platform founding and internationalisation. My results indicate that, while national institutions have a limited effect during in the founding stage of a platform, they play a crucial role in its later internationalisation process.

Chapter 4:
Pulling the Brake: Worldwide Institutional Reactions to Uber's Entry.

Chapter 4, presents my second empirical study, in which I explore how national institutions respond to platforms following their expansion and entry into new markets. Using the ride-hailing platform Uber as my case study, I examine how institutional actors (including unions and regulators) in different countries reacted to Uber's controversial service with unlicensed drivers. I do so by composing a novel dataset on institutional reactions to Uber's entry across all 76 countries where Uber had entered up until 2017, with entries dates taken from Punt et al. (2021). Using the number of those reactions that had a negative effect on Uber's business model as my dependent variable, I examine its relation to three types of institutions: namely the rule of law, institutions supporting innovation, and labour market institutions. The results show that institutional actors responded in a number of ways to the challenges posed by Uber, including, amongst others, the ban of platform use, as well as the issuing of tailored-made regulations in an effort to control Uber's operation. Furthermore, the results indicate that those negative reactions were more likely to occur in countries with well-functioning legal institutions and a robust application of the rule of law. Opposingly, the presence of innovation-friendly and liberal labour market institutions did not lead to more negative reactions against the platform. I therefore conclude that, due to the novelty of phenomenon, Uber suffered from a lack of legitimacy, which was particularly visible in those countries with more developed legal and regulatory institutions.

Chapter 5:
Platform Adaptation to Regulation. The case of domestic cleaning in Europe.

In my final study, in Chapter 5, I explore the question which naturally derives from the previous two: how do platforms respond to negative institutional reactions in order to survive and thrive? I focus on Helpling.com, a major domestic cleaning platform in Europe, examining how it adapted its business model through the course of its operation across five different European countries (UK, Ireland, Germany, Netherlands, and France). I narrow the focus on the most substantial aspect of its business model, namely the employment relationship with its gig workers. In order to explore the platform's over-time adaptation, I develop a novel research approach, based on the comparative analysis of current and previous "Terms and Conditions" of Helpling in each of the five aforementioned countries. Subsequently, the chapter examines their evolution (both within and across the five regulatory regimes) and explains the changes with reference to the specific institutional conditions and political developments for each country case.

The results indicate that, while Helpling originally introduced a similar business model across all five countries, it was soon forced to adapt to each regulatory context, resulting in diverse trajectories of platform adaptation. My results bear significant implications for the possibility to effectively regulate the gig economy, because they prove that platforms are not immune to regulation, but they rather 'mould' themselves to their institutional environment.

Chapter 6: Summary and Conclusions

The final chapter summarises the thesis and derives conclusions, both at an empirical and theoretical level. In this chapter, I also go elaborate on the limitations of my work and suggest a number of avenues for future research.

In Table 1.1, I summarise the research questions, scope of platforms, geography, data and methodology of each chapter.

Table 1.1: Overview of chapters

Ch.	Research question	Platform	Geography	Main data (+ source)	Methodology
2	How to conceptualise the gig economy and its regulatory challenges?	All gig economy platforms	EU27	does not apply	does not apply
3	What explains location and internationalization of gig economy platform start-ups?	243 gig economy platforms	EU27	* Number of platform entries per city (CEPS) * Number of countries that a platform is active in (CEPS) * National institutions (IPD)	Regression analyses
4	What formal institutions affect the likelihood of negative institutional reactions towards Uber?	Uber	Worldwide (76 countries)	* Number of reactions (Google) * National institutions (IPD)	Regression analyses
5	How do gig economy platforms adapt to the regulatory risk of their gig workers being classified as employees?	Helpling	UK, Ireland, Germany, Netherlands, France	* Terms & Conditions (Wayback machine) * Media articles (LexisNexis)	Qualitative

In Table 1.2, I provide an overview of contributions of co-authors. Chapter 2 was developed with the equal contribution of Jaap van Slageren. Koen Frenken and Andrea Herrmann contributed to all chapters in various roles. Chapter 4 has further benefited from the contribution of Matthijs Punt, who assisted with parts of the data analysis and provided feedback during the final writing phase.

Table 1.2: Overview contribution from other authors

	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Research design	Koen Frenken Andrea Herrmann Jaap van Slageren	Koen Frenken Andrea Herrmann		Koen Frenken
Data collection	*does not apply*			
Data analysis	*does not apply*		Matthijs Punt	
Feedback on writing	Koen Frenken Andrea Herrmann Jaap van Slageren	Koen Frenken Andrea Herrmann	Koen Frenken Andrea Herrmann Matthijs Punt	Koen Frenken Andrea Herrmann

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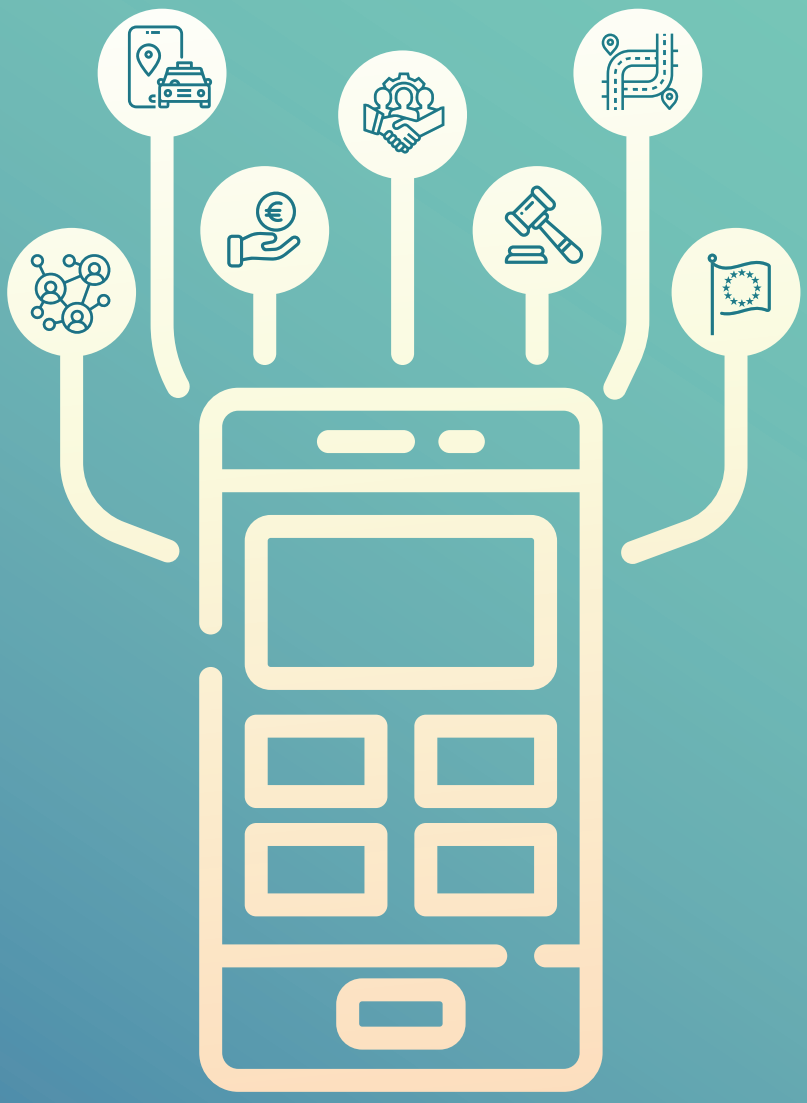


CHAPTER 2

Conceptualising the Gig Economy and its Regulatory Problems

Abstract

The advent of online platforms is considered as one of the most significant economic changes of the last decade, with their emergence reflecting a longer trend of increasing contingent work, labour market flexibility, and outsourcing work to independent contractors. In this article, we conceptualize the so-called gig economy along four dimensions, namely, online intermediation, independent contractors, paid tasks, and personal services. Using this framework, it is possible to derive both a narrow definition of the gig economy, as ex ante specified, paid tasks carried out by independent contractors mediated by online platforms, and broader definitions that include offline alongside online intermediation, employees alongside independent contractors, unpaid tasks alongside paid tasks, and asset sharing alongside performing gigs. The four dimensions also span four key regulatory questions: How should online platforms be classified and regulated; how should gig workers be classified and regulated; what should count as paid and unpaid work; and should we treat earnings from performing gigs differently than earnings from sharing assets? We conclude that the positions taken on these regulatory issues are essentially contingent upon political choices and will determine how the gig economy evolves in the future.

This chapter has been published as Koutsimpogiorgos, N., van Slageren, J., Herrmann, A. and Frenken, K. (2020), Conceptualizing the Gig Economy and Its Regulatory Problems. Policy & Internet, 12: 525–545. https://doi.org/10.1002/poi3.237

2.1 Introduction

The advent of online platforms has been considered to be one of the most significant economic changes of the last decade (Kenney & Zysman, 2016; Van Dijck et al., 2018). In the context of labour markets, online platforms are used to match the supply and demand of flexible labour. The emergence of such platforms reflects a longer trend of increasingly contingent work, labour market flexibility, and outsourcing of work to independent contractors (Estlund, 2018; Hyman, 2018; Stanford, 2017). Online platforms mediating flexible labour are generally classed under the term "gig economy" (De Stefano, 2015; Frenken & Schor, 2017). The best known of these gig economy firms is Uber—the media's "poster boy" for everything deemed good or bad about work via online platforms. However, the rise of online platforms as intermediaries of supply and demand of flexible labour is by no means limited to the taxi sector. Odd jobs (e.g., TaskRabbit), cleaning (e.g., Helpling), care (e.g., care.com), food delivery (e.g., Deliveroo), and programming and translating (e.g., Upwork) are among the examples of services that are increasingly traded via online platforms.

Even though the amount of labour hired through online platforms is still at present small, there is a shared expectation that it will continue to grow; and it is expected to account for a significant part of the economy in the near future (De Stefano, 2015). Given these expectations, scholars, unions, and policymakers alike have taken a great interest in the phenomenon of the gig economy. In their debates, we have witnessed a proliferation of definitions and claims, which reflects the newness and complexity of the phenomenon at hand. However, the lack of an agreed conceptualization and analytical framework could hamper the accumulation of academic understanding of the gig economy, as well as the political deliberation processes regarding its regulation.

To offer an analytical framework for the rapidly increasing number of concepts and policy proposals on offer, we identify four dimensions along which the gig economy has been distinguished from other parts of the economy. These dimensions include (i) online platform versus offline intermediation, (ii) independent contractor versus employee status, (iii) paid versus unpaid work, and (iv) provision of services versus goods. Taking the lowest common denominator of these four dimensions as a baseline, one can define the gig economy as the ensemble of ex ante specified, paid tasks carried out by independent contractors mediated by online platforms. Using this framework also allows us to consider a broader definition of the gig economy that includes a wider range of economic activities along each of the four dimensions, namely, intermediation by offline platforms alongside online platforms, employees alongside independent contractors, unpaid tasks alongside paid tasks, and goods rented out in the "sharing economy" alongside tasks carried out in the gig economy.

Our four-dimensional framework not only aims to clarify the fuzzy conceptual boundaries of the gig economy, it also points to the four essential directions for regulatory responses to societal concerns raised by its advent. Accordingly, the four pillars of our conceptual framework also map onto four substantial regulatory questions related to the gig economy, namely, (i) whether online platforms mediating the supply and demand for gigs should be regulated differently from offline intermediaries performing the same function, (ii) whether gig providers mediated by online platforms should be regulated differently from employees, (iii) whether paid gigs should be regulated differently from unpaid gigs, and (iv) whether providing gigs should be regulated differently from sharing goods. These regulatory issues are currently at the centre of the debates surrounding the gig economy. Accordingly, we argue that the future development of the gig economy is essentially contingent upon political choices regarding the four regulatory challenges that follow from our framework.

The next section draws on the existing literature to introduce the four dimensions we use to conceptualize the gig economy. We then discuss the regulatory questions that follow from these four dimensions. The final section concludes that the future development of the gig economy will be chiefly determined politically, and that it will depend on the regulatory positions taken on the analytical dimensions we propose.

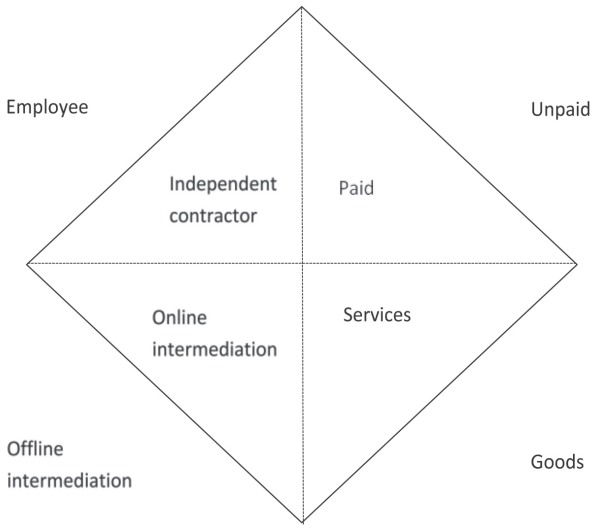
2.2 Conceptualizing the Gig Economy Along Four Dimensions

Despite the massive interest in the gig economy, a widely accepted definition is still lacking among academics, policymakers, and practitioners. Some scholars avoid a general definition, instead focusing on a specific platform (Birgillito & Birgillito, 2018; De Groen et al., 2016; Green et al., 2018; Hara et al., 2018) or a specific sector (Cramer & Krueger, 2016). Others refer to the gig economy as "digital labour markets" without further definition (Burtch et al., 2018; De Stefano, 2015; Eichhorst et al., 2017). And, when looking at scholars who provide clear-cut conceptualizations of what they regard as the gig economy, substantial differences remain (Healy et al., 2017; Kuhn & Maleki, 2017; Stewart & Stanford, 2017).

Definitions have immediate empirical implications. As some define the gig economy more narrowly and others more broadly, the size estimates of the gig economy differ substantially. Looking at the Netherlands, as an example, one report estimates the size of the Dutch gig economy as involving 0.4 percent of the working population (Weel et al., 2018), while another estimates it to be 10.6 percent (Pesole et al., 2018) of the working population.

However, despite little agreement on how the gig economy should be conceptualized, it is possible to distil four dimensions along which definitions of the gig economy diverge between authors. As shown in Figure 2.1, they include (i) online platform versus offline intermediation; (ii) independent contractor versus employee status; (iii) paid versus unpaid work; and (iv) delivery of services versus goods. We elaborate on each of these four dimensions below.

Figure 2.1: Four Characteristics of Gig Economy, in Narrow and Broader Senses.



2.2.1 Online Platform Versus Offline Intermediation

Most scholars see intermediation by online platforms, be it through an app or a website, as a key defining feature of the gig economy (e.g., Aguinis & Lawal, 2013; Stewart & Stanford, 2017; Wood et al., 2019). In this view, the advent of such online platforms has led to the advent of the gig economy. This view is also shared in the policy reports of individual countries, such as the United States (BLS, 2017), the United Kingdom (CIPD, 2017; Department for BEIS, 2018), Finland (Statistics Finland, 2017), Sweden (SOU, 2017), and the Netherlands (Weel et al., 2018), as well as for Europe as a whole (Pesole et al., 2018).

The logic of considering only platform-mediated work as belonging to the gig economy is based on two principal arguments. First, scholars who see online platforms as a defining feature of the gig economy tend to argue that the role of rating systems and algorithmic management fundamentally differentiates online platform intermediation from older forms of offline intermediation (temp agencies, telephone operators, offline bulletin boards, etc.) (De Stefano, 2015;

Duggan et al., 2019; Shapiro, 2018; Wood et al., 2019). Second, they see online platforms changing not only the technology used to mediate supply and demand but also the legal nature of relationships, replacing bilateral with trilateral relationships involving a worker, a requester, and the platform (Aloisi, 2015; De Stefano, 2015; Duggan et al., 2019).

Other scholars, however, do not consider online platform intermediation as a defining characteristic when conceptualizing the gig economy (Friedman, 2014; Kuhn, 2016; Stanford, 2017). Instead, they understand the gig economy as a more encompassing phenomenon that includes all flexible work arrangements of independent contractors, regardless of platform intermediation. Proponents of this broader conceptualization are often economists, who argue that the platform in itself does not fundamentally change the nature of the gigs that are carried out as ex ante specified, paid tasks (the taxi drive, the cleaning job, the programming task, etc.). The main economic effect of online platform mediation has been to lower transaction costs in the market for gigs, which does not necessarily mean that gigs mediated by online platforms should be conceptualized as a separate economic activity from those gigs that are not.

2.2.2 Independent Contractor Versus Employee

The second dimension on which definitions of the gig economy diverge is the nature of employment. Most studies emphasize that the supply of labour in the gig economy concerns "individuals," "taskers," "freelancers," "self-employed," "independent workers," or "independent contractors" rather than employees (Friedman, 2014; Kuhn & Maleki, 2017; Meijerink & Keegan, 2019; Prassl & Risak, 2015). This "freelancing" aspect of the gig economy also entails work being organized into specific tasks upon which gig workers and requesters agree ex ante, that is, before completion of the task. Ex ante defined tasks are typically, but not necessarily, carried out by independent contractors rather than employees. The possibility of carrying out gigs as independent contractors or as employees leads Prassl and Risak (2015) to distinguish between internal and external gig work (or what they call "crowdwork"). In this context, internal work refers to gigs carried out by a company's internal workforce and external work refers to those carried out by workers active on an online platform.

Those who consider only independent contractors to be part of the gig economy ignore the simple empirical fact that some online platforms, like Deliveroo, started off by employing their riders and only switched to using independent contractors later on (Zekic, 2019). Other platforms, such as Hilfr in Denmark, pioneered a hybrid model in 2019 where workers start with independent contractor status but can opt for employee status after 100 hours of work (Aloisi, 2019). And in Germany, platforms for delivery services, such as Lieferando, offer highly flexible employment contracts where riders are paid by the hour (including their waiting time).

A question at the centre of contemporary legal debates is whether gig workers are to be considered independent contractors or employees (Aloisi, 2015; De Stefano, 2015; Prassl & Risak, 2015; Prassl, 2018; Taylor et al., 2017). The legal status of "independent contractor" implies a certain amount of autonomy, which may be questioned in this case. While some platforms only act as a simple bulletin board for gigs, others are more actively involved in the transaction (including matching, contracting, and pricing) as well as the evaluation of a gig (through timing, ratings, and reviews)—which may, in turn, be fed back into the matching algorithm. The control that such platforms exert over workers casts doubt on the autonomy of workers and has in several court cases provided legal grounds for a reclassification of independent contractors as employees (De Stefano, 2015; Loffredo & Tufo, 2018; Prassl, 2018).

2.2.3 Paid Versus Unpaid

In accounts of the gig economy, most scholars explicitly focus on paid work (De Stefano, 2015; Kuhn & Galloway, 2019; Taylor et al., 2017). Hence, their notion of the gig economy refers to market transactions only and can thus be measured, for example, through bank transaction data (Farrell & Greig, 2016; Farrell et al., 2018). The focus on paid work is understandable as many investigate whether independent contractors mediated by online platforms should be considered to be employees (for which payment is a necessary condition; Aloisi, 2015; De Stefano, 2015; Healy et al., 2017), while others focus on questions related to financial matters, such as the minimum wage (Stanford, 2017) or tax issues (Thomas, 2017).

However, the focus on paid work as a defining criterion of the gig economy also raises questions. First, there is a substantial component of unpaid work associated with paid work in the gig economy. For example, waiting time for chauffeurs and couriers is not compensated if they have the status of an independent contractor. And, especially on platforms that organize digital services performed remotely (such as data entry, programming, translation, etc.), gig workers spend a lot of unpaid time searching for gigs (Berg, 2016; Wood et al., 2019). Regarding voluntary work, we also witness the advent of online platforms matching supply and demand of work. Distinguishing between ordinary, paid work to voluntary, unpaid work in this context is not a straightforward matter. Platforms may frame the work they mediate as voluntary while nevertheless suggesting financial compensation from the requester. And in some instances, such as Helpper in Belgium, the work is advertised with hourly pay rates, albeit ones that are below the minimum wage.

2.2.4 Services Versus Goods

The final conceptual issue concerns the question of whether the gig economy only includes individuals performing gigs by selling their own labour, or whether

it should also include individuals who rent out their assets. Most authors agree that the gig economy should be restricted to labour transactions so as to differentiate labour platforms from capital platforms—where labour platforms refer to intermediation of ex ante specified tasks in the gig economy, and capital platforms refer to individuals who rent out their own consumer goods in what is known as the sharing economy (Duggan et al., 2019; Farrell & Greig, 2016; Frenken & Schor, 2017).

However, this seemingly clear-cut conceptual distinction is often not fully applicable, because sharing assets also involves some amount of labour (Frenken et al., 2019). For example, the tenant of accommodation rented through Airbnb also pays for reception and cleaning, which can be considered gigs (regardless of whether the homeowner or someone else carries out these tasks). In this sense, renting out an asset to a consumer can also be considered an ex ante specified task (just like a gig)—albeit a rather capital-intensive one. Following this view, some scholars place labour (gig) platforms and renting (sharing) platforms under the same conceptual umbrella (Healy et al., 2017; Schor, 2016), and some policy reports also include the sharing of assets in their analysis of the gig economy (CIPD, 2017; Pesole et al., 2018).

2.2.5 Narrower and Broader Definitions

The four dimensions we have identified in relation to the gig economy and its conceptualizations span a four-dimensional analytical framework. Following this framework, the lowest common denominator can serve as the narrowest baseline definition of the gig economy, as ex ante specified, paid tasks carried out by independent contractors mediated by online platforms. It also follows from our framework that broader definitions of the gig economy are conceivable, including intermediation by offline platforms alongside online platforms, employees alongside independent contractors, unpaid tasks alongside paid tasks, and goods rented out in the sharing economy alongside tasks carried out in the gig economy.

2.3 Regulatory Classification

Our discussion of the four dimensions of the gig economy makes clear that the concept of the gig economy has fuzzy boundaries. The proliferation of definitions both in academia and in policy documents can thus be understood as a manifestation of the difficulty of drawing sharp boundaries along each of these four dimensions. Our framework, then, is helpful in unravelling the sources of these conceptual divergences.

We can also use this four-dimensional framework to shed light on current debates regarding the institutionalization of the gig economy. These debates are centered on the distinctions between online platforms and offline intermediation,

between independent contractors and employees, between paid and unpaid work, and between services and goods. The exact boundaries between these categories can be drawn differently in different countries and economic sectors. Consequently, just as we witness a plurality of conceptualizations of the gig economy, we also witness a plurality of institutionalization processes of the gig economy (Thelen, 2018; Uzunca et al., 2018).

More specifically, the four dimensions we have distilled from the conceptual debate surrounding the gig economy constitute an analytical scheme that allows us to systematically reflect on four current debates about regulatory classifications. These issues concern the following questions (i) how an online gig platform should be classified, (ii) how a gig worker should be classified, (iii) how we should deal with unpaid and unpaid gigs, and (iv) how we should deal with rental services based on personal assets. We will discuss these four regulatory debates one by one, including their interdependencies.

2.3.1 Online Platform Versus Offline Intermediation

One of the major differences between online platforms and older forms of intermediation in traditional labour markets consists in the radically new way that intermediation is performed, namely through algorithms, reviews, Global Positioning System, and electronic payment systems. It is the novel way in which online platforms match supply and demand that have raised platform-specific regulatory issues, including algorithmic discrimination, privacy, and the lack of transparency (Helberger et al., 2018; Van Dijck et al., 2018). These concerns lead to a range of new regulatory challenges, not just for gig economy platforms, but also for online platforms more generally (including second-hand marketplaces, search engines, and social media), which are beyond the scope of the current article.

In the context of the gig economy, the key issue at hand is the classification of an online platform. Gig economy platforms generally present themselves as online intermediation services or "technology companies." Under prevailing e-commerce law in Europe and the United States, such platforms cannot be held liable for the actions of their gig workers (except in very specific circumstances) (Cauffman & Smits, 2016; Helberger et al., 2018). This has also been the starting point for the European Commission in its reflections on online labour platforms (European Commission, 2016).

However, sectoral regulations may apply to online platforms, to the extent that they perform similar intermediation functions as "offline platforms." No example could better demonstrate this conundrum than the case of Uber and the way it has been regulated on both sides of the Atlantic (Thelen, 2018). Uber's launch in the United States was characterized by an aggressive marketing campaign to rapidly increase its network and legitimize its operations. At that point, Uber was in direct conflict with the established regulatory systems

for taxi services in many U.S. cities, which operated on the basis of a fixed number of licenses (medallions). Instead of backing down in response to the regulatory backlash, Uber branded itself as an agent of "positive disruption" in a monopolistic market and used its growing user base as a tool to advocate and promote its business model to policymakers. The success of Uber (and of similar platforms) led many politicians to adopt this narrative, and to develop a whole new regulatory category, branding them as "network transportation companies" (Thelen, 2018). Europe, on the contrary, followed a different regulatory approach, rejecting Uber's claim of "positive disruption" and forcing the company to adapt its model to the existing regulatory framework. Although the process evolved somewhat differently between countries (Pelzer et al., 2019; Thelen, 2018; Uzunca et al., 2018), the common trend across Europe has been that Uber phased out its UberPOP service with unlicensed drivers and moved instead to a license-only model across Europe, accepting on their platform only drivers with a taxi license. This trend was reinforced in December 2017, when the European Court of Justice ruled against Uber by classifying it as a transportation company, which further settled the debate at the European level (Curia, 2017).

The above example is telling with regard to how regulators choose to deal with the platform aspect of the gig economy. While in the case of the United States the use of the platform was politically considered an innovation, which effectively set Uber (and similar firms) apart from the taxi market, resulting in a new, tailor-made regulatory framework, the very same innovation was classified as a transportation service in Europe. At the heart of this controversy is the question of whether an online platform, as an innovation, creates a new market or whether it rather disrupts an existing one (Prassl, 2018). Advocates of the former view make a case for a kind of "technological exceptionalism" or "digital distinctiveness" of the gig economy, while those supporting the latter view question the true novelty of the online platform. The answer to the question of whether the gig economy should be regulated separately (as a platform business) or within the existing legal framework (developed for "offline businesses") is not self-evident. As a consequence, the regulatory response is not straightforward but rather contingent upon political choices and local contexts.

2.3.2 Independent Contractor Versus Employee

Across Europe, the employment status of gig workers is probably the most central topic in the public debate of the gig economy (Aloisi, 2015; De Stefano, 2015; Florisson & Mandl, 2018). As different employment statuses directly translate into different forms of social protection, working conditions, and representation of workers, the legal term used to describe gig workers in each country has direct effects on their rights and obligations. Furthermore, it has broader implications in the field of competition law and taxation (International Labour Organisation, 2013).

The transformation of the working relationship from bilateral to trilateral inescapably raises the question of whether gig workers should be classified as employees (Prassl & Risak, 2015). Traditionally, work relationships have been bilateral, be it between a requester and an independent contractor or between an employer and an employee. In the case of intermediation by platforms, however, this bilateral relationship develops into a trilateral work agreement between the work requester, the platform, and the gig worker. In the transaction process between the requester and the gig worker, both parties also establish a contract with the platform providing the online services that the two parties use to realize that same transaction. This, in turn, blurs the boundaries between the traditional concept of employee and independent contractor (Duggan et al., 2019; Loffredo & Tufo, 2018; Prassl & Risak, 2015).

The "EU Treaties" (Treaty of the European Union and the Treaty of the Functioning of the European Union) fail to provide a uniform definition of what constitutes a "worker," beyond the scope of the freedom of movement (De Stefano & Aloisi, 2018). Subsequently, the European Court of Justice developed its own definition of the concept of "employee," which is also adopted by the Commission to describe who qualifies as such within the "collaborative economy" (European Commission, 2016). According to this definition, an employment relationship exists when "for a certain period of time a person performs a service for and under the direction of another person in return for which he receives remuneration" (Judgment of the Court, 1986, C-66/85, Deborah Lawrie-Blum v. Land Baden-Württemberg).

Importantly, this definition is structured around three main concepts: relationship of subordination, completion of an activity, and remuneration of the activity completed. While gig workers mostly perform activities that are remunerated with monetary payment, the question of subordination is less clear-cut. On the one hand, workers are assessed by clients through ratings and reviews and monitored by platforms for their acceptance rates and speed of service. This information may be used by the platform to decide to ban an "underperforming" gig worker from the platform at any moment and without explanation. On the contrary, gig workers enjoy the freedom of deciding whether, or not, to accept a gig request and remain—in most cases—autonomous with regard to what to charge and how they carry out the requested gig. Thus, depending on a number of factors (such as the use of ratings in ways that can be detrimental to the gig workers, or whether the price is set by the platform or freely agreed), the gig worker may be classified as an independent contractor or entitled to the legal rights and obligations of a traditional employee (De Stefano & Aloisi, 2018).

A related question that is less often posed in the context of the gig economy is how to classify someone as an independent contractor (Frenken et al., 2018). Importantly, the category of independent contractors is not simply a residual category for those who do not meet the classification criteria of an employee. The question to be answered is whether an independent contractor can exercise

the same freedom as an independent business. One constraint imposed by many platforms is that gig workers can hold only one account and receive one assignment at a time, meaning that gig workers are technologically restricted from growing their business by reselling their assignments or hiring employees. The difficulty of classifying a gig worker as an employee or as an independent contractor creates a legal gray area. Here, workers find themselves to be economically dependent on the transacting platform, while not benefitting from the employee status. At the same time, they bear all the risks of being an independent contractor but do not enjoy the same economic freedom as regular businesses (De Moortel & Vanroelen, 2017).

The unclear status of a gig worker leads to a situation whereby it is ultimately up to national courts to decide whether a gig worker performing platform-mediated work is to be understood as an "employee" or "self-employed." As De Stefano & Aloisi (2018, p. 53) point out in the case of food delivery workers, "a courier performing the same activity can be classified as a quasi-subordinate worker in Italy, as a self-employed worker in France, as an employee in Germany, as a "zero-hours" contract worker in the United Kingdom, or as an intermittent worker in Belgium." Logically, the task of defining who is an independent contractor and who is an employee falls upon the judiciary, which has to apply existing laws to new cases. This may, however, not generate clarity per se, even within a single country, because the same court may reach almost opposite conclusions on different but related cases, as that of Deliveroo in the Netherlands exemplifies (Zekic, 2019). Originally, Deliveroo started out employing its riders but decided in January 2018 not to renew its fixed-term labour contracts and to continue its operations with independent contractors as riders. One of the riders, with the support of the largest Dutch trade union *federatie nederlandse vakbeweging* (FNV), sued the platform, claiming that there was no fundamental change in the employment relationship between the two parties and that the collective labour agreement of the professional goods transport sector should continue to apply. The Subdistrict Court of Amsterdam ruled against the worker, while nevertheless recognizing the shortcomings of current employment law with regard to the gig economy and calling upon legislators to take action. The FNV union then asked the court to rule on Deliveroo's practices as a whole, instead of the individual case. This time, the same Subdistrict Court of Amsterdam ruled in favour of FNV, forcing the company to abandon its model based on independent contractors. The case is still ongoing, as Deliveroo filed an appeal.

Given the regulatory complexity surrounding the classification of gig workers, most stakeholders agree that their work status should be clarified. In essence, this is a regulatory and thus political question, because the classification of gig work—possibly differentiated by sector—has direct consequences for wage setting, social security, and consumer welfare. Four different regulatory solutions have been proposed.

The first solution, mainly advocated by the unions, is to consider gig workers as employees, based on the control that a platform exercises over its gig workers (Aloisi, 2015; De Stefano, 2015). Existing law and regulations would simply continue to apply, and benefits accruing from employee status would ensure the social protection of gig workers. The obvious implication of such a pathway would be that most platforms could not continue to operate their current business models. Instead, they would have to assume the role of employers, requiring the introduction of fixed working hours and pay while workers wait for gigs. It would not imply, however, that the services offered through platforms would cease to exist. Most probably, such services would become more expensive, leading the gig economy—including the associated consumer surplus—to shrink in size.

The second way to deal with the legal uncertainty surrounding the classification of gig workers is to introduce a third category alongside employees and independent contractors (Healy et al., 2017; Prassl & Risak, 2017). The aim would be to grant gig workers access to a set of rights that they would not enjoy as an independent contractor. Importantly, though, such an expansion of the legal codex would run counter to the established legal practice of dealing with new phenomena within the scope of existing codices. Furthermore, some scholars argue that a new category of gig workers could result in increased labour-market segmentation and social inequality (Florisson & Mandl, 2018).

Intermediate categories already exist in some EU countries, notably, the "worker category" in the United Kingdom. A well-known case where the intermediate worker category has been extended in order to incorporate gig workers, is Uber BV v. Aslam in London. Two Uber drivers turned against the company, claiming that they were not independent contractors as maintained by Uber's terms of service and should instead be reclassified as "workers" within the scope of the existing labour law, making them eligible for minimum wage, sick leave and paid holiday provisions. As De Stefano and Aloisi (2018, p. 48) explain, the judgment to extend the worker category to Uber drivers showed that the court denied "the fact that the company exercises a mere enabling activity between two opposite groups of users." In doing so, "the British court emphasizes that Uber does not provide the opportunity for individually negotiating the content of the obligation, while tasks are performed personally, with no possibility of being replaced temporarily."

One country, France, took the initiative to create a new category in response to the rise of gig economy platforms, thereby extending French employment law to include gig workers (French Labour Law n.2016-1088), so as to bestow on gig workers a set of employee rights. These new provisions apply in all cases where the platform exercises a high degree of control over the worker, as defined by the law. When recognized as such, the gig worker is entitled to protection from work accidents and work-related disease and enjoys the right to unionization and collective action (Donini et al., 2017). Regarding other European countries,

Risak and Dullinger (2018) mention the "employee-like person" in Austria and Germany, and the "para-subordinate" in Italy as examples of already existing intermediate categories that may be applied to certain gig workers in the future.

Creating a completely new category remains a politically risky endeavour, with the possibility of far-reaching and unintended consequences. If a third category is established, employees may lose rights if their employment status is downgraded to that category (Cherry & Aloisi, 2018). This may explain the reluctance of policymakers to adopt such an approach, especially in contexts where most flexible labour has the same legal status of an employee at a temp agency (as for example in Belgium and the Netherlands).

A third route is to reconceptualize the notion of employer altogether (Prassl, 2015). This approach means moving away from an inelastic definition of the employment relationship, where the following five conditions need to be met in order for a work relationship to qualify as an employer–employee relationship (Prassl & Risak, 2017): the inception and termination of the employment relationship, receiving labour and its fruits, providing work and pay, controlling all factors of production, and undertaking an enterprise with potential profit and loss. A "functional" conceptualization of the employer, instead, is one "in which the contractual identification of the employer is replaced by an emphasis on the exercise of each function—be it by a single entity (…) or in situations where different functions may be exercised from more than one locus of control" (Prassl & Risak, 2017, p. 281). Following this functional concept of the employer, the latter can be a single entity or combination of entities (e.g., a combination of the requester, the platform, and the gig workers). What matters is who plays a decisive role in the exercise of a particular employing function, and who can then be regulated as such according to prevailing employment law. Hence, a functional approach could be a way to deal with the complexities arising from trilateral work relationships inherent to gig work mediated by platforms.

The incorporation of gig workers into collective labour agreements constitutes a final way of ensuring some degree of gig worker protection. Several unions have taken this up, as it reinforces their role as social partners and could increase their membership base (Donini et al., 2017; Johnston & Land-Kazlauskas, 2018; Lenaerts et al., 2018). The most telling example of this fourth approach towards gig worker classification comes from a country with wide union coverage and an institutionalized social dialogue: Denmark. In 2018, the service-sector union 3F signed a collective agreement with the platform Hilfr, which is active in the care sector. Gig workers can decide to opt in to become an employee of the platform (enjoying a minimum wage, holiday pay, sick pay, and a contribution to their pension savings) once they have worked for Hilfr for 100 hours, or they can decide to opt out (Aloisi, 2019). However, collective wage bargaining by gig workers may meet resistance in competition law, given their status as independent contractors in most countries (Daskalova, 2018).

2.3.3 Paid Versus Unpaid

Most would agree that the gig economy concerns economic transactions only—thus dealing with paid assignments rather than unpaid assignments associated with voluntary work and hobby activities. There are many examples of platforms that mediate supply and demand of voluntary work and hobby activities (such as crowdsourcing platforms, open-source software platforms, Wikipedia, or websites of voluntary organizations). One could, however, argue that not all of these are voluntary or hobby activities, as some people work for platforms in the hope that they will be selected for future paid assignments, or that they will otherwise generate revenues, for example, through the publicity they have generated on a platform.

Users of online platforms also leave reviews and comments on a platform's website, which could be regarded as voluntary work to the extent that these users add content with economic value, but without them receiving any financial compensation for it. Taking this argument to its extreme, one could regard any user of a platform as a provider of unpaid work, because any recorded activity on a platform can be used by the platform as information, most notably, for advertising purposes (Fuchs & Sevignani, 2013; Zuboff, 2019). This issue becomes particularly acute once platforms extract economic value from the data that platform workers generate without being compensated for it (Van Dijck et al., 2018). This, in turn, leads to the (to date) open political question of whether users ought to be financially compensated for the free "digital labour" they perform while active on online platforms (Savona, 2019).

A related issue concerns the uncertainty of payments. Working without remuneration is illegal in modern legal systems. Nevertheless, there are examples of workers completing assignments for an agreed price but without receiving the actual payment for it, because the requester is free to decide whether, or not, to pay once the assignment is completed. On MTurk, for example, the requester can deem the work submitted to be unsatisfactory and refuse payment, and there is no mechanism for gig workers to challenge this decision. Much more common are questions arising from remuneration below the minimum wage (if one exists), facilitated by the status of independent contractors that platforms assign to gig workers. This practice, if left uncontrolled, could lead to a race-to-the-bottom of labour standards and salaries. This concern is particularly acute in economic downturns (when labour is in abundant supply) and for global platforms mediating online gig work (i.e., gigs that can be performed online), so that gig workers can be hired from around the world (International Labour Organization, 2018). In the absence of supranational regulation and global unions, such global digital marketplaces disempower labour, and may lead to lower wages and decreasing labour security and labour standards alike (Freeman, 2006; Olney, 2013).

The main requesters of online gig work are large firms in Western countries. Hence, a regulatory pathway that may be promising in these contexts is one in

which requesters commit to "decent commissioning." For example, IG Metall together with other unions set up a Code of Conduct in 2016, signed by eight internationally operating platforms, that includes a "fair payment" principle following the local wage standards of the requester. And in 2017, an Ombuds Office was established to enforce the Code of Conduct and resolve disputes between workers and signatory platforms (International Labour Organization, 2018).

The issue of low pay is especially pertinent for those who earn their full income in the gig economy. Schor et al. (2018) find that workers who use platforms only to supplement their income generally feel empowered and pick the best-paid gigs at convenient times, while workers who are dependent on platforms for their full income generally feel disempowered, having to accept low-paid gigs and less convenient working times. One way to counter low pay is to set a minimum tariff for independent contractors, as pioneered by the Netherlands Authority for Consumers and Markets in July 2019 (Authority for Consumers and Markets, 2019).

2.3.4 Service Versus Goods

Scholars generally differentiate the online labour platforms in the gig economy from capital platforms in the sharing economy, where individuals who rent out their own consumer goods such as cars and houses (Duggan et al., 2019; Farrell & Greig, 2016; Frenken & Schor, 2017). The distinction between services and goods is important, in that earnings in the gig economy are generally considered as income and taxed accordingly, while earnings in the sharing economy may not be taxed at all (such as occasional second-hand sales, carpooling, and car-sharing), or otherwise tend to fall under specific tax regimes (such as earnings from home rental). One particularly subtle example that illustrates the importance of differentiating between services and goods in the gig economy is the distinction made between ride-hailing (e.g., via Uber) and ride-sharing (e.g., via BlaBlaCar). While the former is generally regarded as work, and taxed accordingly as income, earnings from ride-sharing are generally considered to be an untaxed remuneration for the cost of fuel incurred by the car owner, who shares an otherwise under-utilized asset, that is, an empty seat (Frenken & Schor, 2017).

While the difference between labour platforms and capital platforms may be conceptually straightforward, the distinction is less clear-cut in practice. Most tasks that gig workers provide still involve the use of assets required to render the service (such as a computer, car, bike, drilling machine, etc.). Conversely, consumers renting out their assets not only extract rents from this asset but also perform work by cleaning, maintaining, and inspecting the asset upon its return (or hiring labour to this end). Hence, both work and assets are involved as inputs in any service, even if one would intuitively make a distinction between gigs as completing a particular task and sharing as renting out a particular asset. Online platforms, then, can be situated on a continuum, ranging from the mediation of highly labour-intensive

gig work (e.g., cleaning and tutoring) to highly asset-intensive sharing services (e.g., home-sharing and car-sharing), with some platforms situated in between (e.g., ride-hailing and home restaurants) (Frenken et al., 2019).

Following this reasoning, the key difference between labour platforms and capital platforms (viz. gig economy and sharing economy) is not related to whether assets are involved in providing a particular service, but rather to whether an asset is used by a supplier of a service (in the execution of a task) or by a consumer (who rents an asset for personal consumption). Prices in the gig economy are based on the willingness to pay for a particular service in the form of an ex ante defined task. By contrast, prices paid in the sharing economy are based on the willingness to pay for the asset being rented out, that is, the services that a consumer can extract from having temporary access to a particular asset as a consumer of that good.

Arguably, the main regulatory challenge relating to the question of sharing versus gig work is of a fiscal nature. Bringing earnings from performing gigs and from sharing assets under the same fiscal umbrella would resolve the classification issue. However, it does not resolve the bigger problem of collecting taxes from earnings in the first place (Oei & Ring, 2017; Thomas, 2017). While taxes from employees are relatively easy to collect, because employers can be obliged to disclose their wage payments to the tax office, tax collection from gig workers and sharing consumers is much more difficult. In situations where payments are made via online platforms, current privacy laws make it difficult to oblige platform operators to disclose transaction data, which is especially true if platforms are operated from abroad. And, if taxes can be imposed automatically on transactions made via platforms in the future, those who want to avoid paying taxes may look for alternative platforms that let clients pay gig workers directly.

Interestingly, while the main approach in the United States is to classify gig workers as self-employed and tax them as such, the issue is far less clear in Europe, because of the diversity of legal classifications of labour between countries. The European Commission has made clear that individuals who "carry out independently economic activity [...] through sharing economy platforms" fall within the scope of the Value Added Tax (VAT) directive (Council Directive 2006/112/EC) and qualify as taxable persons (European Commission, 2015). Whether a gig worker is classified as an employee or as an independent contractor defines whether they will be considered as a person subject to taxation (Pantazatou, 2018). The issue of independence is thus crucial, as it constitutes the defining element of an activity being subject to tax. If the platform is considered to be just an intermediary, the gig worker is obliged to collect and pay VAT. If the platform is considered to be an employer, the platform is subject to the regulations of the VAT directive, while the gig worker has to pay regular income tax (Pantazatou, 2018).

Much of freelance work has always been informal, implying that workers did not necessarily declare their income at the tax office. With the rise of online platforms, though, the amount of income that remains undeclared may increase substantially. For this reason, Thomas (2017) suggests simplifying tax collection. For example, platform companies could withhold the taxes for their gig workers, but without being classified as employers. As a further simplification, Thomas (2017) suggests a "standard business deduction" for gig workers, which would take away the administrative burden they now face when keeping records and filling in tax forms. Such an approach would also make it possible to introduce different tax rates for gig workers on the one hand and assets sharers on the other. For example, income from gig work is exempted from tax in Belgium up until 6,000 Euro per year, but income from home-sharing is not (Frenken et al., 2019). This differentiation can be justified for redistributive purposes, assuming that those who own expensive assets, such as houses, planes and boats, are high earners.

2.4 Summary and Conclusions

The hiring of workers for single discrete tasks, where the requester and worker are matched via an online platform, is an emerging form of labour transaction—often called the gig economy. Supporters argue that the gig economy meets the wishes of both requesters and workers for more flexible work relationships, while sceptics worry about low pay and limited social security of gig workers. Although the gig economy is receiving widespread attention, consensus on a concept of the gig economy is remarkably limited. Thinking of the gig economy simply as "digital labour markets" sidesteps a more elaborate explication of what gig economy actually is, which, in turn, complicates empirical assessments of gig work.

In answer to these conceptual and empirical problems, we have proposed a conceptualization of the gig economy along four dimensions, namely, (i) online platform versus offline intermediation, (ii) independent contractor versus employee status, (iii) paid versus unpaid work, and (iv) service provision versus goods. Taking the lowest common denominator of these four dimensions, one could then define the gig economy, in a narrow sense, as ex ante specified, paid tasks carried out by independent contractors mediated by online platforms. Importantly, our analytical framework also makes it possible to take a broader perspective by including offline intermediation, employees performing gigs, unpaid activities, and the sharing of goods in the concept of the gig economy.

Furthermore, each of the four dimensions of our analytical framework points to one fundamental issue regarding regulatory classification, namely, (i) how a gig platform should be classified, (ii) how a gig worker should be classified, (iii) how to deal with unpaid and unpaid gigs, and (iv) how to deal with rental services based on personal assets. In sum, the four-dimensional framework helps us to understand not only the various facets of the gig economy but also the

corresponding regulatory challenges.

As well as offering an analytical framework for understanding the conceptual and regulatory debates surrounding the gig economy, our framework can also serve as a basis for future research. It could, for example, be applied to understand the differences in regulatory responses across countries (Thelen, 2018; Uzunca et al., 2018). Online platforms lend themselves well to comparative research designs, as many platforms are active in multiple countries. Similarly, our framework can also be used to study differences in regulatory responses across sectors. Indeed, as the exact functions and operations of platforms differ across sectors, regulatory debates and actions may unfold differently between these sectors (Frenken et al., 2019).

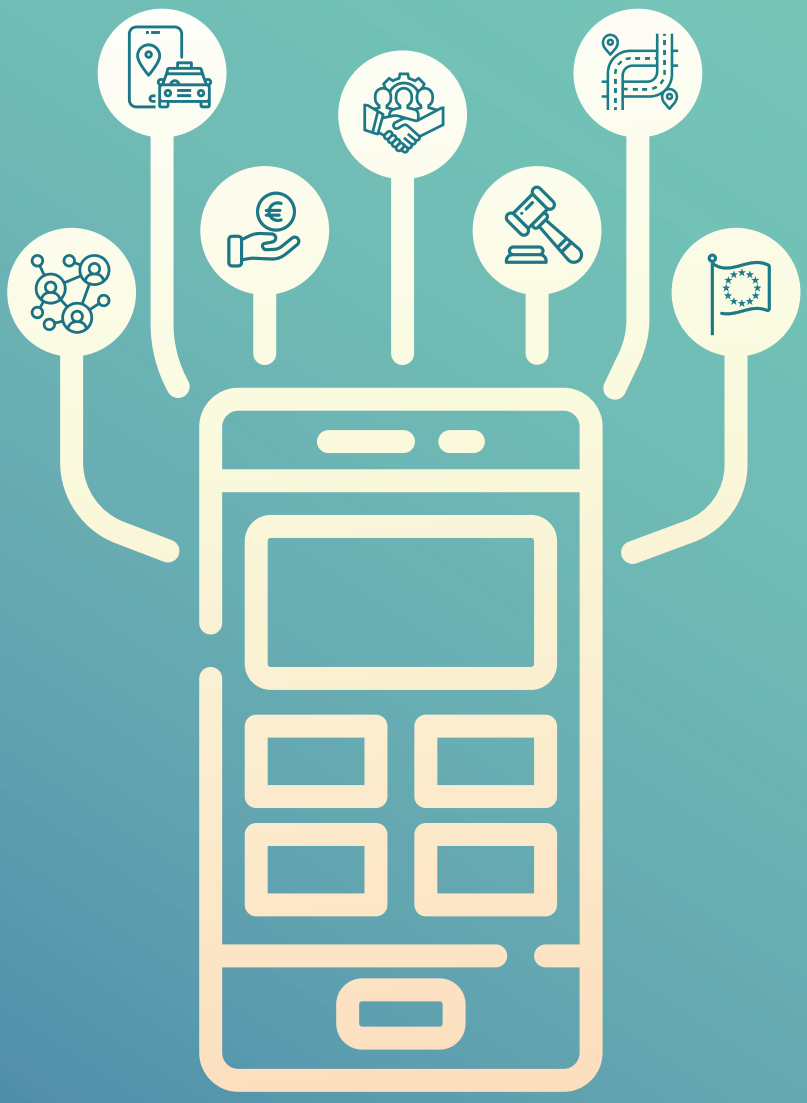
Additionally, the framework can be used to understand the combined effects of regulatory options along each of the four dimensions. For example, classifying a platform as an employer would imply classification of the gig worker as an employee, which, in turn, would solve the problem of low pay and foregone tax. Classifying a platform as an electronic service, by contrast, would mean classifying the gig worker as an independent contractor, which would not solve the problem of underpayment unless collective bargaining or minimum tariffs were allowed under current competition law. Classifying online labour platforms as temp agencies would possibly resolve the classification issue for platforms and workers as well. The existing regulatory regime for temp agencies—which still may vary across countries—could then be transposed to platforms (possibly with some adaptations). Platforms would then follow the collective wage agreement with temp agencies and facilitate tax collection by governments, and it would also differentiate gig platforms from asset sharing platforms. However, temp agencies have to comply with regulations that are currently incompatible with the independent contractor model of most online labour platforms, where the workers decide themselves when to work and how to perform a job. Hence, a reclassification of online labour platforms as temp agencies would also require a redesign of the platforms' matching algorithms and associated business models.

Clearly, political choices along each of the four dimensions of the gig economy will have important implications for its future evolution and the ways in which platforms can be deployed to mediate online labour markets. If gig workers become classified as employees and platforms as their employers, adjustments in the platforms' business models will follow, probably raising prices for customers. However, if regulation is more accommodating—so that gig workers keep their status as independent contractors while platforms are considered to be e-commerce entities—the gig economy will most likely continue to grow. Between these two extremes, one can think of applying a functional definition of the employer to be more flexible so to the grounds on which employer status can be assigned (Prassl, 2015). Alternatively, ad hoc sectoral regulations or collective agreements can be established, depending on a specific assessment of labour conditions, consumer

interests, or other relevant public values (Helberger et al., 2018).

Regulation of gig platforms may thus evolve in different directions depending on the national or sectoral contexts (Frenken et al., 2019)—a case-by-case approach that has also been advocated by the European Commission (2016). The resulting proliferation of regulatory regimes provides an opportunity to learn across contexts from the variety of regulatory solutions adopted and their economic and social effects. At the same time, the increasing regulatory complexity faced by gig workers, clients, and platforms alike may frustrate the realization of potential benefits provided by online platforms, and it may also make it harder to agree on social security reforms that would protect independent contractors in a more comprehensive manner, regardless of whether they work via online platforms. In summary, our aim has been to unravel this regulatory complexity along four dimensions, thus providing a multidimensional framework to assess regulatory reforms to come.

2



CHAPTER 3

The Internationalisation of Labour Platforms in Europe

Abstract

The last decade, we have witnessed a proliferation of labour platforms across Europe and beyond. Labour platforms connect freelance workers to urban residents who demand 'on-location gigs' such as taxi rides, food deliveries and cleaning jobs. Contrary to other parts of the platform economy dominated by the United States and China, most labour platforms active in Europe have been founded within Europe itself. In this study, we pose the question what city characteristics and national institution explain the urban founding rates of new labour platforms across Europe. We also investigate the same city characteristics and national institutions support the internationalization of labour platforms across national borders. Our results show that urbanisation economies and venture capital institutions support the founding of on-location labour platforms, while their subsequent international success is associated with institutions that promote innovation, competition and labour market flexibility in their home country.

3.1 Introduction

With the increased reliance by firms and consumers on online platforms, the economy is transforming into a 'platform economy' (Kenney & Zysman, 2016). Platform companies such as Alphabet, Amazon, Apple, and Tencent have emerged as the new global superpowers in a short time span of two to three decades. A more recent trend over the past decade is the rise of platform apps that locally connect freelance workers to urban residents who demand 'on-location gigs' such as taxi rides, food deliveries and cleaning jobs. Such new apps have become known as 'labour platforms' for on-location gig work (De Stefano & Aloisi, 2018; De Groen et al., 2021).

Online labour platforms can be understood as a new organizational form that connects supply and demand of gig work. Gig work can be understood as: *"ex ante specified, paid tasks carried out by independent contractors mediated by online platforms"* (Chapter 2, p.26). Platforms generally focus on the demand side, providing clients with an algorithmic ranking of gig worker profiles as well as their ratings and reviews that past clients left on the platform. This allows clients to quickly choose among a variety of workers and offerings. Once gig workers and clients have agreed on the gig, further communication and transactions are often also completed via the platform. In doing so, online platforms greatly reduce the transaction costs involved in the labour market for gigs. In return, gig platforms generally take a commission fee over every match completed.

Labour platforms are not as 'asset-heavy' as traditional firms operating in the same sectors. Platforms intermediate the side of freelancers with the side of clients, rather than providing the gigs themselves. In contrast to traditional firms, labour platforms do not employ their workforce but they rely on flexible personnel know as 'gig workers'. Gig workers act as freelancers, bearing the responsibility for legal and financial obligations, for their social insurances (if any), and for their work equipment they need to complete their gigs.

Being asset-light and freelance-based, labour platforms have the propensity to quickly expand internationally by copying their software and brand to other locations. Newly founded platforms tend to focus on developing software and a strong brand name, which can then be replicated across borders supporting a rapid internationalization process, akin to a 'Born Global' strategy (Zander et al., 2015). Born Globals are start-ups that internationalise very quickly, often within the first three years of their creation (Lopez et al., 2009). The rapid international expansion of online platforms is generally supported by venture capital, spent on software development and aggressive marketing campaigns, aiming at capturing a substantial market share in each city they operate in. Market share is key as to benefit from the network externalities stemming from connecting two sides of a market (Parente et al., 2018). Large urban centres would thus provide the optimal conditions for such platforms to start up, as such centres generally host venture capitalists as well as critical masses of gig workers and clients.

Despite an inherent flexibility, though, labour platforms remain embedded within the institutional environment in which they operate (Thelen, 2018). This holds particularly true for those intermediating local 'on-location' services, such as taxi, food delivery or cleaning (De Stefano & Aloisi, 2018). Despite their online nature, labour platforms providing on-location services are bounded by the geographical and institutional conditions that affects their operations. The rapid internationalization of platforms leaves little room for compliance with national or urban regulations, leading to push backs from institutional actors such as regulatory authorities, trade unions and politicians. Institutional frictions display the mismatch between the platform business model and existing institutional frameworks, and have led to variety of response such as court cases and popular protest (Bessa et al., 2022). Such actions have the effect of undermining platforms' legitimacy and could harm their business model and profitability.

From a geographical perspective, one can ask the question what explains the location decision of start-ups as they develop a new platform. In particular, we are interested in the favourable city size and national institutions that may explain differential founding rates of labour platforms in cities within and across countries. Moreover, we are also interested in the city characteristics and national institutions that support the chances of successful internationalization of labour platforms across national borders. Looking at the number of countries that a platform becomes active over time, the rate of internationalisation can be understood as a key sign of a platform's business success.

Our study looks at differences between cities in the European Union (EU) in terms of the founding rates of labour platforms as well as between labour platforms in terms of their internationalization. The setting of the EU is most insightful as most labour platforms operating in Europe originate from Europe itself (De Groen et al., 2021) in contrast to the 'Big Tech' platforms operating in Europe which mainly originate from the United States and to a lesser extent from China (Kenney & Zysman, 2020). Furthermore, the EU constitutes a separate regulatory space for platforms, both with regards to traditional competition law and privacy legislation (GDPR), and to a lesser extent employment protection. Despite the aggressive entry of some American labour platforms in European markets – notably Uber – the rise of labour platforms founded in European cities suggests a 'window of locational opportunity' (Boschma & Lambooy, 1999) for European entrepreneurs to successfully enter the platform economy. Some of these may grow out to become European, or even global, players thus contributing to Europe's economic competitiveness and autonomy. The establishment of European platform companies is also welcomed by European policy makers who aim to become less dependent on American and Chinese platform companies (Codagnone et al., 2021). Consequently, a Europe-centric focus delivers particularly straightforward insights into the impact of national institutions on platform internationalisation.

We proceed as follows. Section 2 presents our theoretical framework starting

from the theory on 'Born Globals' (Zander et al., 2015) from the international business literature with extensions to the geographical and institutional conditions that may affect platform founding and internationalization (section 2). We present our data collection, dependent and independent variables, and the statistical methods in section 3. We present the results of our analysis in section 4 and then provide a summary and conclusions in section 5.

3.2 Theoretical framework

3.2.1 Born Globals

As labour platforms provide intermediation services using online software technology, their services can be rapidly scaled up. They do not employ the gig workers who act as freelancers completing their jobs, nor do they have to invest in assets, such as real estate or work equipment. A distinct characteristic of labour platforms, therefore, is their propensity for international expansion shortly following their introduction, by copying their software and brand to other locations. In this regard, platforms bear close similarity to Born Global enterprises identified in the International Business literature (Zander et al., 2015). Born Globals have been defined as *"business organizations that, from or near their founding, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries"* (Knight & Cavusgil, 2004, p. 124).

What sets Born Globals apart from traditional multinational corporations is their propensity to internationalise before consolidating their domestic position. This practice is central to their overall business strategy and often takes place within the first three years of their creation (Lopez et al., 2009). Studies indicate that Born Globals are more likely to be found in technology-intensive industries rather than manufacturing industries because the latter face higher upfront investments (Paul & Rosado-Serrano, 2019). Lower entry barriers, though, could be regarded as a 'double-edge sword' as they indicate a lack of extensively available resources (Zander et al., 2015). As a counterbalance to that resource scarcity, Born Globals employ a variety of strategies, such as increased efficiency in resource allocation *vis-à-vis* traditional corporations (Knight & Cavusgil, 2004), agility and flexibility in their operations and decision-making (Autio et al., 2000), fostering partnerships with local businesses (Madsen & Servais, 1997), and employing managers with previous international experience (Rialp et al., 2005).

Labour platforms constitute Born Global companies *par excellence*, as their business model is based upon the development of software, which in the form of an online platform can be easily replicated across borders. Nevertheless, their expansion may not unfold as easily as some scholars predicted early on (Sundararajan, 2016). Even within the European Union, platforms have to deal with the multitude of laws and regulations which still characterise different countries, particularly in industrial regulations and employment law (Thelen,

2018). Institutional incompatibilities between home and host country can result into frictions which impede internationalisation (Kostova & Zaheer, 1999). New foreign markets come with new sets of regulations, new local norms, and specific customer requirements. Traditional Multinationals are more likely to gain local legitimacy when these regulations, local norms, and customer requirements are similar to those in their home country (Flores & Aguilera, 2007).

Founding and internationalisation do not constitute two different processes for Born Global labour platforms, but they are closely interconnected swiftly following one another. Being aware of that, platform entrepreneurs will aim for locations where they can find support for both the founding process and the subsequent internationalisation process. Thus, in the following sections we elaborate on the geographical and institutional conditions that affect platform founding and internationalisation.

3.2.2 Geographical conditions

As a new organizational form, labour platforms can be considered a service innovation that is typically introduced by newly founded firms. The introduction of radically new innovations by startups is often an urban phenomenon, with large cities providing the best conditions for entrepreneurs to embark on new entrepreneurial ventures. Urban environments provide a variety of resources that start-ups can build upon, including specialized knowledge, venture capital, and opportunities for collaboration (Audretsch and Feldman, 1996). Such resources are not only pivotal to start-up a business, but also to scale up a business across borders in a short period of time. Indeed, there is empirical evidence that radical innovations and new industries typically start in large urban areas (Audretsch and Feldman, 1996; Bettencourt et al. 2007, for a review, see: Carlino & Kerr, 2015).

For on-location labour platforms, such as taxi, food delivery and cleaning, the benefits for start-ups of locating in large cities do not lie only in support for innovation and entrepreneurship, but also in the critical masses of gig workers on one side of the platform and urban clients on the other side of the platform. Emerging start-ups are facing the 'chicken-and-egg' problem inherent to 'two-sided platforms' in that gig workers will only join if clients are present, while clients will only join when gig workers are present (Rochet & Tirole, 2003). The higher the number of users who participate on both sides of the platform, the higher the positive network externalities that will attract even more users on both sides. It is on this premise that venture capitalists are willing to invest large sums to cover losses early on, hoping that the platform will emerge as a city's market leader, or even monopolist, making supra-normal profits in the longer run.

As larger cities host many more potential workers and clients, a platform can more easily mobilize a critical mass at both sides on their platform through urban marketing campaigns. A platform's successful establishment in a large city may well

attract further investments to scale up their business to other cities and countries. Moreover, the proven software technology, business model and brand name of a successful platform can be leveraged in the further international expansion process.

Taken together, we put forward the following hypotheses:

Hypothesis 1A: Larger cities will experience disproportionally higher founding rate of new on-location platforms

Hypothesis 1B: The larger the city in which an on-location platform is founded, the higher the internationalization rate of an on-location platform.

Among the cities that attract labour platform entrepreneurs, capital cities may be most attractive. First of all, such cities often host the seat of government and regulatory bodies, as well as the place of financial capital, proximity to whom could yield valuable financial and legitimacy resources for new platforms (Punt et al., 2021). Second, capital cities are generally best connected internationally hosting professional consultancies, global finance and international airports, providing better grounds for start-ups to find support for a born-global expansion strategy (Taylor & Derudder, 2015). Hence:

Hypothesis 2A: Capital cities will experience higher founding rates of on-location platforms than other cities

Hypothesis 2B: On-location platforms founded in capital cities will experience higher internationalization rates than other on-location platforms.

3.2.3 Institutional Conditions

While on-location labour platforms operate at city levels, they are also affected by national institutions (De Stefano & Aloisi, 2018; Thelen, 2018). Extensive research has shown the effect of institutions on corporations and how they influence their location choices and patterns of internationalisation (for a review, see Kim & Aguilera, 2016). Particularly with regards to formal institutions, the existing literature explores the effect of formal political, economic and labour market related institutions. In view of the potentially disruptive character of platforms and their desire for swift up-scaling across borders, the avoidance of institutional frictions may become a key consideration for their original location choice (Punt et al., 2021).

In particular, platforms may prefer locations in countries with innovation-enhancing and competition-enhancing institutions. Indeed, labour platforms disrupt the markets they enter, as their innovative online intermediation services compete with pre-existing offline intermediation services (e.g., taxi telephone operators, temp agencies) or traditional service providers (cleaning companies, tutoring agencies, delivery services). In their analysis of location decision of Uber across the world, Punt et al. (2021) and Kim & Suh (2021) indicate that Uber

was indeed attracted to countries with institutions that support innovation and competition. For what regards the location decisions of labour platform start-ups, the same reasoning can apply. First, national institutions fostering innovation and competition, such as supporting fiscal advantage, innovation support policies and favourable regulation, help entrepreneurs to establish their new businesses. Second, such institutions equally support the international expansion once their business model has been proven viable locally. Their success in turn is expected to attract more investments. Hence:

Hypothesis 3A: Cities in countries with innovation-enhancing institutions will experience higher founding rates of on-location platforms than cities in other countries.

Hypothesis 3B: On-location platforms founded in countries with innovation-enhancing institutions will experience higher internationalisation rates than in other countries.

Hypothesis 4A: Cities in countries with competition-enhancing institutions will experience higher founding rates of on-location platforms than cities in other countries.

Hypothesis 4B: On-location platforms founded in countries with competition-enhancing institutions will experience higher internationalisation rates than in other countries.

Availability of venture capital resources is another critical factor for the location decision of platforms. For technology start-ups more generally, the ability to raise funding from venture capital constitutes an important achievement, and it common for a business to go through multiple funding rounds (Bonini & Capizzi, 2019). Venture capital can take a more informal form (often referred as 'business angels'), with individuals or networks which provide funding for smaller unlisted companies, often coupled with other non-financial resources which are particularly critical for resource-constrained start-ups (Avdeitchikova & Landström, 2016).

Similar to other technology start-ups, labour platforms depend on venture capital for their financing, particularly in the early stages of creation. Uber, for example, went through no less than 15 funding rounds during its first seven years, with more than half of them including traditional venture capital (Bonini & Capizzi, 2019). For labour platforms. venture capital is not only needed to develop the platform's software, but also to fund the urban marketing campaigns and initials discounts to attract a critical mass of gig workers and clients. Such early investments are needed to assure that sufficient two-sided network externalities emerge in order for the platform to grow endogenously later on (Rochet & Tirole, 2003). Considering the significance of venture capital in the development of start-up platforms, we put forward the following hypotheses:

Hypothesis 5A: Cities in countries with increased availability of venture capital will experience higher founding rates of on-location platforms than cities in other countries.

Hypothesis 5B: On-location platforms founded in countries with higher availability of venture capital will experience higher internationalisation rates than platforms founded in other countries.

Finally, employment regulation plays a prominent role for start-ups. Labour platforms structure their business model around the use of self-employed workers (freelancers) instead of hired employees. That practice has resulted into broader regulatory questions and pushbacks in the form of protest, lawsuits and, in some contexts, more restrictive regulations (De Stefano & Aloisi, 2018; Chapter 2).

The main issue concerns the question whether gig workers, as freelancers, are truly autonomous or subordinate to the platform. Gig workers are typically assessed by clients through ratings and reviews. What is more, platforms may track their acceptance rates and speed of service. All this information may be used by the platform to algorithmically rank the worker lower in search results, or even to ban this worker from the platform. Given this exercise of power of platforms over gig workers, many scholars and union representatives argue that gig workers would be entitled to the legal rights and obligations of a traditional employee (Prassl & Risak, 2016; De Stefano & Aloisi, 2018). However, labour platforms prefer to continue to treat gig workers as freelancers, which give platforms more flexibility to match fluctuating demand with appropriate supply. What is more, hiring gig workers as employees would raise prices for clients and thus violate platforms' business models and their rapid scaling strategy, as the total cost of gigs would increase as to cover income tax and social insurances.

It is reasonable to assume that platforms will try to avoid regulatory friction resulting from incompatibilities between their employment practices to treat gig workers as freelancers and national labour market regulations. In particular, the need to deal with strict labour market regulations would impend their operations and their scaling. Hence, one can expect that platforms prefer to found their business in cities located in countries with more flexible labour market regulations, which are the most compatible with their labour practices and business model. Thus, we put forward the following hypotheses:

Hypothesis 6A: Cities in countries with more flexible labour markets will experience higher founding rates of on-location platforms than cities in other countries.

Hypothesis 6B: On-location platforms founded in countries with more flexible labour markets will experience a higher degree of internationalisation than platforms founded in other countries.

3.3 Data and methods

3.3.1 Data collection

We base our analyses chiefly on the dataset of European labour platforms compiled by CEPS (www.ceps.eu) on behalf of the European Commission (De Groen et al., 2021). The CEPS-dataset compiled all labour platforms which were active in the EU up until 2020, when the data collection stopped. This dataset allowed us to identify the labour platforms originating from and operational in the European Union (EU). As a result of Brexit, platforms founded in the United Kingdom are not included.

The original dataset contains a total of 590 platforms including platforms transacting those intermediating online gigs (such as programming, translation or design). As said, we here focus on on-location labour platforms, leaving us with 365 cases. We further exclude the 41 platforms that have non-EU country of origin, resulting in a dataset of 324 platforms.

We extended the CEPS-dataset by collecting additional data on the on-location platforms in Europe, identifying the first city of operation of each platform. In those cases where platforms have their headquarters just outside city borders, we assigned the platform to the metropolitan area in question. Using this information, we can construct the number of foundings per city as a first dependent variable (see section 3.2).

To find the city of origin for each platform, we checked the website of each platform as well as open sources. Thereby, we applied the following protocol:

- **Step 1:** We examined the website of the platform for any direct reference to its founding history.
- **Step 2:** If Step 1 did not reveal the city of first corporate registration, we completed a web search of open sources, news articles and information repositories for any reference to the first city of operation. To that effect we used Google search applying the search strings {"[Platform name]" AND "founded"}, and {"[Platform name]" AND "launched"}.
- **Step 3:** If Step 3 did not reveal the first city of operation, we used the city where the platform initially located its headquarters.

In all, we were able to collect data for 273 platforms, as we could not find information for 51 platforms that we excluded from the sample.

The CEPS-dataset also provides the number of countries it is active in at the end of the period (2020). This we use to measure the rate of internationalisation of a platform as the second dependent variable (see section 3.2).

Finally, the dataset contains a number of platform-specific variables, including the founding year, skills level required for gig workers, and the sector of operation (De Groen et al., 2021).

3.3.2 Dependent Variables

Founding Analysis

The unit of analysis in the founding analysis is the city. The dependent variable is the count of the number of foundings in each city over the entire period. For our founding analysis, we look at all the cities in the European Union with a population larger than 300,000 inhabitants, resulting in 88 cities in total (using www.geonames.org). We choose this cut-off point because the large majority of cities smaller than 300,000 has zero entries, which means that including even smaller cities would inflate the number of cities with zero foundings. Note that out of the total of 273 platform foundings that we identified (see section 3.1), 183 choose to locate in a city with more than 300,000 inhabitants. Thus, using the cut-off point of 300,000 inhabitants allows us to capture a large majority of labour platform foundings.

Internationalization Analysis

The unit of analysis in the internationalization analysis is the platform. Our dependent variable is the number of countries that a platform was active at the end of the observation period (in 2020), as reported in the CEPS-dataset. Thus, we exclude all those platforms that became inactive before 2020. This resulted in a dataset of 257 labour platforms still active in 2020.

3.3.3 Independent Variables

Founding Analysis

To test our hypotheses on the founding of platforms, we use two sets of independent variables, compiling urban and institutional characteristics. The two urban variables concern city size and a capital dummy. The city size of the log-transformed city population is based on data taken from www.geonames.com. As the dependent variable (number of platforms founded per city) is a count variable, the dependent variable is log-transformed in the Negative Binomial regression analysis (see also 3.4). By log-transforming the city size data as well, the resulting regression coefficient can be interpreted as an urban scaling law, meaning that a value higher (lower) than 1 indicates that the number of platforms scale faster (slower) than the urban population (Bettencourt et al., 2007). Put differently, a value higher (lower) than 1 means that the number of platforms per capita is higher (lower) in larger cities than in smaller cities. To test hypothesis 1A, we thus explicitly look at the size of the coefficient where a size larger than 1 indicate a disproportional number of foundings in larger cities. To test hypothesis 2A, stating that capital cities are an especially attractive location for labour platforms, we introduce a dummy variable for capital cities.

The second set of variables includes four indicators, measuring economic and political institutions at the national level. Data are taken from the Institutional Profiles Database (IPD) 2016 available at www.cepii.fr, which contains 130 indicators of institutional characteristics for 143 countries. The dataset is composed by country-level indicators, measured on a continuous scale from 0 to 4. As many countries have been assigned the same value, we transform these indicators into dummies distinguishing between lower and higher values, by splitting the distribution at the median. In order to test Hypothesis 3A, we use the indicator "Adaptations and Innovation" measuring a country's innovative capacity. Lower scores indicate reduced capacity to adapt and innovate, while higher scores indicate innovation-enhancing institutions (dummy: Innovation). For Hypothesis 4A we use the "Competition: Barriers to market entry" indicator, measuring the non-economic barriers to market entry for new competitors. Lower values indicate major barriers for new companies thus lower competition, and higher values indicate less barriers for new companies, thus more competition (dummy: Competition). For testing Hypothesis 5A, we use the indicator termed "Venture Capital" which measures the level of development of venture capital within a country. In this case, lower values indicate the lack of any venture capital, while higher values point to well-developed venture capital institutions (dummy: Venture Capital). Finally, for Hypothesis 6A, we use a fourth indicator which relates to the labour market rigidity, measuring the extent of guaranteed hiring and long-term employment, as well as the degree of wage indexation on inflation. Low values point to a higher rigidity stemming from widespread practice of guaranteed employment and wage indexation, while higher values pointing to high flexibility with guaranteed employment and wage indexation being much less common (dummy: Labour Market Flexibility).

Internationalisation analysis

Similar to the founding analysis, we test for the effect of urban size and capital dummy using the log-transformed population numbers and a capital city dummy. This allows us to test hypotheses 1B and 2B regarding the urban conditions that support internationalisation of platforms. To test the hypotheses 3B, 4B, 5B and 6B on the internationalization of platforms we employ the same indicators as in the founding analysis. The effect of economic and political institutions on internationalisation is captured by the same four institutional dummies: Innovation, Competition, Venture Capital and Labour Market Flexibility.

3.3.4 Control variables

Finally, we use four control variables. First, we control for the founding year. As the internationalisation process takes time, platforms that exist longer can be expected to have higher rates of internationalisation, *ceteris paribus*. By controlling

for the founding year, we account for the simple fact that internationalisation processes always take time.

Second, we control for platforms that are set up as a cooperative. Such platforms are not-for-profit and locally embedded by having workers and/or other stakeholders as the platform's owners. As cooperative labour platforms aim towards promoting an equitable distribution of profits and workplace democracy for its members, scaling across national borders is most often not an objective; nor is such a process easily managed in a democratically run enterprise (Bauwens et al., 2022; Bunders et al., 2022). Hence, we control for platforms with a cooperative dummy variable.

Third, we control for the skills that gig workers require to offer their gig services. These data are drawn from the original CEPS-dataset (De Groen et al., 2021), which we recoded from its original five categories into three main categories: low, medium and high skill (using low skills as reference category). A small set of 14 platforms were classified in all skills categories, which we left out in the regressions, meaning that the regression models will all be based on 248 observations out of the 257 labour platforms in the dataset still active in 2020.

Finally, we also take the sector in which a labour platform operates into account. The original CEPS-dataset (De Groen et al., 2021) provides six categories: delivery, taxi, domestic work, freelance, home services, and professional services (using delivery as reference category).

3.3.5 Regression models

In order to test the hypotheses regarding founding and internationalization of platforms, we perform Negative Binomial regression analyses to explain the counts of platforms founded per city (dependent variable: Foundings) and the counts of countries that platforms had expanded to by 2020 (dependent variable: Internationalisation). We also use a Negative Binomial regression to account for the particular nature of the dependent variable, which demonstrates a right-skewed distribution with the variance exceeding the mean for both dependent variables. All analyses were performed in R.

3.4 Results

3.4.1 Founding Analysis

Table 3.1 shows the 15 most prolific European cities in terms of labour platform founding. It is clear that the large cities such as Paris, Berlin, Barcelona and Madrid host many entrants, but also much smaller cities like Amsterdam, Brussels, Copenhagen and Bratislava appear to act as hubs for labour platforms. It is further noteworthy that, out of the total of 88 cities we consider, 50 cities experienced no founding of any on-location labour platforms.

Table 3.2 shows the descriptive statistics of the variables included in the Founding Analysis. As explained, the institutional variables are transformed into dummies by splitting the distribution at the median value into low (0) and high (1) values.

Table 3.1. *Top-15 cities with most entries of labour platforms*

City of origin	No. Entries	Population	Country of origin
Paris	23	11,598,866	France
Amsterdam	18	741,636	Netherlands
Berlin	17	3,426,354	Germany
Brussels	17	1,830,000	Belgium
Barcelona	11	5,487,935	Spain
Madrid	11	6,386,932	Spain
Bratislava	7	599,015	Slovakia
Kopenhagen	7	1,153,615	Denmark
Milan	7	3,249,816	Italy
Athens	6	3,761,810	Greece
Rome	6	4,342,212	Italy
Prague	5	1,165,581	Czech Replublic
Stockholm	5	2,127,006	Sweden
Budapest	4	1,741,041	Hungary
Valencia	4	814,208	Spain

Table 3.2. *Descriptive statistics (Founding Analysis).*

Variable	Source	N	Mean	Mean	Median	SD	Min	Max
Number of entries	ceps.eu	88	2.08	2.08	0	4.37	1	23
Population (log)	geonames.org	88	13.47	13.47	13.26	0.80	12.62	16.27
Capital city	geonames.org	88	0.26	0.26	-	-	0	1
Innovation	cepii.fr	88	2.69	2.69	2.33	0.99	1.33	4
Competition	cepii.fr	88	2.16	2.16	2.50	0.77	0	4
Venture Capital	cepii.fr	88	2.02	2.02	2	0.69	1	4
Labour Market Flexibility	cepii.fr	88	3.29	3.29	3	0.57	2	4

Table 3.3. Negative Binomial regression on number of labour platforms entering per city (Founding Analysis).

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Population (log)	1.470*** (0.198)						1.123*** (0.200)
Capital city		2.281*** (0.376)					1.587*** (0.363)
Innovation			0.257 (0.455)				-0.224 (0.429)
Competition				0.159 (0.458)			0.225 (0.403)
Venture Capital					0.947 (0.590)		0.943** (0.412)
Labour Market Flexibility						0.220 (0.458)	0.369 (0.325)
Constant	-19.790*** (2.729)	-0.461** (0.231)	0.604* (0.312)	0.641* (0.343)	0.508** (0.244)	0.631** (0.303)	-16.227*** (2.732)
AIC	265.838	276.102	305.905	306.104	303.263	305.993	246.237
BIC	273.2698	283.5337	313.3368	313.5364	310.6951	313.4247	266.0561
Log Likelihood	-130.919	-136.051	-150.952	-151.052	-149.632	-150.996	-116.119
Observations	88	88	88	88	88	88	88

*Note: *p<0.1; **p<0.05; ***p<0.01.*

Table 3.3 shows the regression results explaining the number of foundings of labour platforms in European cities. The subsequent models include the variables used to test our hypotheses. We test for the effect of each variable separately, and subsequently create a full model including all variables. It is the full model on which we base the conclusions regarding our hypotheses, as each variable is controlled for by the inclusion of all other variables.

In model 1, which includes the log-transformed population variable, we see a positive coefficient of +1.470 at a one percent significance level, indicating that cities with larger population experience higher levels of platform founding. The coefficient is much larger than 1, indicating a strong urban scaling effect, with platforms preferentially seeking larger cities. Put differently, the number of platforms per capita increases with city size reflecting that larger cities experienced disproportionally higher founding rates of new on-location platforms compared to smaller cities.

Model 2 tests for the effect of being the capital city and has a large and positive coefficient of +2.281 at a one percent significance level, indicating a strong preference among labour platforms to locate in capital cities rather than other cities. Models 3–7 test for the effects of national institutional variables, but do not yield any statistically significant results. In our final model 7, we see that, again, both city size and the capital dummy are statistically significant at a one percent level with (unsurprisingly) somewhat smaller coefficients of +1.123 and +1.587, respectively. The first coefficient being large than 1 indicates that the scaling

law regarding population remains intact once all other variables are included. The second coefficient regarding capital cities indicates that, compared to other cities, exp(1.587)=4.89 times more platforms are being founded in capital cities. Furthermore, in Model 7, the variable on Venture Capital becomes statistically significant at a five percent significance level with a coefficient of +0.943. This indicates that a well-developed venture capital market and associated institutions positively affects the founding rate of labour platforms created in a city. That is, compared to other cities, cities with high-quality venture capital institutions see exp(0.943)=2.57 times more platforms being founded.

3.4.2 Internationalization Analysis

Table 4.4 shows the 25 most internationalized labour platforms. Here, we see cities like Berlin, Tallinn and Amsterdam as "breeding" places for successfully internationalising platforms, while other cities, hosting many entrants such as Paris and Brussels (see Table 4.1), are much less prominent in the list of Table 4.4. These discrepancies suggest that the conditions supporting the founding of new labour platforms may not be fully similar to the conditions supporting their subsequent internationalisation.

Table 3.5 provides the descriptive statistics of the variables included in the internationalisation analysis. Note that the institutional variables are again transformed into dummies by splitting the distribution at the median value into low (0) and high (1) values. The non-negligible share of platform cooperatives (10 percent) is furthermore notable – for which we control with a dummy variable. Finally, the large shares of platforms transacting low-skill gigs (67 percent) and of delivery platforms (32 percent) are noteworthy.

Table 3.6 provides the regression results for the rate of internationalization of platforms. As for the earlier regression results reported in Table 3.3, we end with a full model in Table 3.6 including all variables, on which we base our conclusions regarding the hypotheses.

Table 3.4. *Top-25 labour platforms active in most countries*

Platform	No. Countries	City of origin	Country of origin
Eurosender	27	Ljubljana	Slovenia
Guruwalk	27	Valencia	Spain
StarofService.dm	27	Paris	France
WithLocals	27	Eindhoven	Netherlands
Good Spot	25	Dinan	France
Blacklane	21	Berlin	Germany
MammaPack	20	Turin	Italy
Babysits	18	Rotterdam	Netherlands

Platform	No. Countries	City of origin	Country of origin
Bolt	17	Tallinn	Estonia
Taxify	17	Tallinn	Estonia
Wolt	16	Helsinki	Finland
Yoopies	14	Paris	France
Bolt Food	12	Tallinn	Estonia
care.com	10	Berlin	Germany
Free Now	10	Hamburg	Germany
Hajtás Pajtás	10	Budapest	Hungary
deliver.ee	8	Paris	France
Goopti	8	Ljubljana	Slovenia
Sandemans New Europe	8	Berlin	Germany
Glovo	7	Barcelona	Spain
Mopets	7	Brussels	Belgium
Sennder	7	Berlin	Germany
Sitly	7	Amsterdam	Netherlands
Wilio	6	Bratislava	Slovakia
Helpling	5	Berlin	Germany

Table 3.5. Descriptive statistics (Internationalisation Analysis)

Variable	Source	N	Mean	Median	SD	Min	Max
Number of countries	ceps.eu	248	2.62	1	4.68	1	27
Founding year	ceps.eu	248	2014	2015	3.78	2000	2020
Cooperative	own	248	0.10	–	–	0	1
Population (log)	geonames.org	248	13.6	13.61	1.68	9.13	16.26
Capital city	geonames.org	248	0.53	–	–	0	1
Innovation	cepii.fr	248	2.76	2.67	0.76	1.33	4
Competition	cepii.fr	248	2.23	2.5	0.75	0	4
Venture Capital	cepii.fr	248	2.28	2	0.74	1	4
Labour Market Flexibility	cepii.fr	248	3.35	3	0.47	2	4
Skill Level (low)	ceps.eu	248	0.67	–	–	0	1
Skill Level (medium)	ceps.eu	248	0.25	–	–	0	1
Skill Level (high)	ceps.eu	248	0.08	–	–	0	1
Delivery	ceps.eu	248	0.32	–	–	0	1
Domestic Work	ceps.eu	248	0.23	–	–	0	1
Freelance	ceps.eu	248	0.10	–	–	0	1
Home Services	ceps.eu	248	0.22	–	–	0	1
Professional Services	ceps.eu	248	0.04	–	–	0	1
Taxi	ceps.eu	248	0.09	–	–	0	1

Table 3.6. Negative Binomial regression on the number of countries a platform is active in (Internationalisation Analysis)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Founding year	-0.041** (0.019)	-0.041** (0.019)	-0.040** (0.019)	-0.027 (0.019)	-0.037** (0.018)	-0.038** (0.019)	-0.045** (0.019)	-0.034* (0.019)
Cooperative	-0.911*** (0.296)	-0.928*** (0.300)	-0.855*** (0.305)	-0.815*** (0.296)	-1.002*** (0.298)	-0.964*** (0.303)	-0.940*** (0.299)	-0.883*** (0.310)
Skill level (medium)	0.765*** (0.235)	0.754*** (0.234)	0.785*** (0.235)	0.748*** (0.233)	0.782*** (0.234)	0.764*** (0.235)	0.757*** (0.235)	0.727*** (0.232)
Skill level (high)	0.603 (0.703)	0.580 (0.704)	0.632 (0.704)	0.644 (0.700)	0.584 (0.701)	0.656 (0.707)	0.646 (0.704)	0.740 (0.706)
Domestic Work	-0.212 (0.201)	-0.213 (0.201)	-0.191 (0.202)	-0.154 (0.201)	-0.256 (0.201)	-0.237 (0.201)	-0.219 (0.201)	-0.159 (0.200)
Freelance	-1.336** (0.669)	-1.330** (0.669)	-1.321** (0.669)	-1.241* (0.666)	-1.399** (0.667)	-1.390** (0.671)	-1.374** (0.670)	-1.321** (0.664)
Home services	-0.993*** (0.281)	-0.982*** (0.280)	-1.007*** (0.282)	-0.913*** (0.279)	-1.064*** (0.280)	-1.028*** (0.284)	-0.995*** (0.281)	-0.917*** (0.281)
Professional services	-1.561*** (0.465)	-1.559*** (0.465)	-1.555*** (0.466)	-1.606*** (0.463)	-1.678*** (0.468)	-1.613*** (0.471)	-1.549*** (0.465)	-1.619*** (0.466)
Taxi	0.257 (0.243)	0.261 (0.245)	0.243 (0.243)	0.208 (0.243)	0.191 (0.243)	0.272 (0.243)	0.240 (0.244)	0.072 (0.248)
Population (log)		-0.017 (0.043)						-0.021 (0.059)
Capital city			0.113 (0.145)					0.099 (0.196)
Innovation				0.367** (0.147)				0.500*** (0.176)
Competition					0.243 (0.149)			0.199 (0.173)

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Venture Capital						0.103 (0.148)		-0.092 (0.170)
Labour Market Flexibility							0.120 (0.142)	0.418** (0.165)
Constant	83.241** (37.275)	83.673** (37.246)	81.890** (37.337)	54.612 (38.135)	75.232** (37.216)	78.199** (37.668)	91.286** (37.678)	68.711* (38.269)
AIC	1,025.080	1,026.907	1,026.504	1,021.227	1,024.531	1,026.625	1,026.371	1,024.151
BIC	1063.728	1069.068	1068.665	1063.388	1066.692	1068.786	1068.532	1083.879
Log-Likelihood	-502.540	-502.454	-502.252	-499.614	-501.265	-502.313	-502.185	-496.076
Observations	248	248	248	248	248	248	248	248

*Note: *p<0.1; **p<0.05; ***p<0.01.*

Table 3.7: Negative Binomial regression on the number of countries a platform is active in using country dummy variables (Internationalisation Analysis)

Variable	Model 1	Model 2	Model 3	Model 4
Founding year	-0.042** (0.019)	-0.042** (0.019)	-0.042** (0.019)	-0.042** (0.019)
Cooperative	-0.839*** (0.301)	-0.807*** (0.312)	-0.841*** (0.307)	-0.815*** (0.312)
Skill level (medium)	0.728*** (0.222)	0.744*** (0.222)	0.727*** (0.222)	0.743*** (0.222)
Skill level (high)	0.766 (0.697)	0.782 (0.697)	0.766 (0.697)	0.782 (0.697)
Domestic Work	-0.085 (0.203)	-0.079 (0.203)	-0.085 (0.203)	-0.082 (0.203)
Freelance	-1.183* (0.649)	-1.184* (0.650)	-1.183* (0.649)	-1.191* (0.649)
Home services	-0.876*** (0.273)	-0.891*** (0.273)	-0.876*** (0.273)	-0.888*** (0.274)
Professional services	-1.502*** (0.451)	-1.498*** (0.452)	-1.502*** (0.451)	-1.496*** (0.452)
Taxi	-0.048 (0.258)	-0.055 (0.259)	-0.048 (0.258)	-0.061 (0.259)
Population (log)		0.019 (0.047)		0.039 (0.069)
Capital city			-0.004 (0.150)	-0.100 (0.219)
Belgium	0.631 (0.760)	0.637 (0.760)	0.632 (0.760)	0.667 (0.763)
Croatia	1.011 (1.198)	1.054 (1.204)	1.009 (1.200)	1.065 (1.204)
Cyprus	-0.010 (1.426)	0.015 (1.428)	-0.008 (1.429)	0.108 (1.443)
Czechia	0.458 (0.866)	0.447 (0.866)	0.460 (0.871)	0.504 (0.874)
Denmark	0.336 (0.825)	0.340 (0.824)	0.337 (0.827)	0.377 (0.829)
Estonia	2.742*** (0.858)	2.760*** (0.860)	2.745*** (0.862)	2.842*** (0.877)
Finland	1.829** (0.870)	1.834** (0.870)	1.832** (0.876)	1.906** (0.885)
France	1.139 (0.740)	1.123 (0.741)	1.140 (0.740)	1.130 (0.741)
Germany	1.265* (0.755)	1.242 (0.757)	1.267* (0.759)	1.271* (0.759)
Greece	0.331 (0.913)	0.304 (0.915)	0.333 (0.917)	0.339 (0.917)

Variable	Model 1	Model 2	Model 3	Model 4
Hungary	1.032 (0.858)	1.016 (0.859)	1.035 (0.864)	1.063 (0.864)
Ireland	0.067 (1.015)	0.059 (1.015)	0.069 (1.019)	0.118 (1.023)
Italy	0.895 (0.763)	0.884 (0.764)	0.895 (0.763)	0.864 (0.765)
Lithuania	0.570 (0.945)	0.571 (0.945)	0.573 (0.949)	0.635 (0.955)
Netherlands	1.085 (0.746)	1.094 (0.746)	1.086 (0.746)	1.119 (0.750)
Poland	-0.060 (1.017)	-0.053 (1.017)	-0.060 (1.017)	-0.049 (1.016)
Romania	0.249 (1.149)	0.250 (1.149)	0.250 (1.150)	0.280 (1.151)
Slovakia	0.264 (0.855)	0.273 (0.856)	0.266 (0.859)	0.338 (0.867)
Slovenia	1.868** (0.788)	1.890** (0.791)	1.870** (0.790)	1.965** (0.803)
Spain	0.883 (0.751)	0.852 (0.755)	0.883 (0.751)	0.826 (0.756)
Sweden	0.155 (0.895)	0.141 (0.895)	0.157 (0.897)	0.172 (0.898)
Constant	83.241** (37.275)	83.673** (37.246)	81.890** (37.337)	54.612 (38.135)
AIC	1,016.133	1,017.960	1,018.133	1,019.751
BIC	1128.563	1133.903	1134.076	1139.207
Log-Likelihood	-477.067	-476.980	-477.066	-476.875
Observations	248	248	248	248

*Note: *p<0.1; **p<0.05; ***p<0.01.*

Note that we control, in each of the regression models, for the founding year, the cooperative form, skill level and sector. The founding year is, as expected, negative and significant in each of the regression models indicating that platforms founded earlier in time, on average, have become active in more countries than platform founded more recently. And, as expected, the cooperative dummy also shows a negative and significant sign in most models indicating that cooperatives become much less internationalised than their for-profit counterparts. The control variables referring to different skill levels are significant and positive for medium skill level platforms, indicating a much higher degree of internationalisation in comparison to low skill platforms. Finally, regarding sectoral differences, we find a lower degree of internationalisation of platforms intermediating professional services and home services as compared to delivery services. Model 1 contains all the control variables.

Model 2 and Model 3 test for the effect of population size and capital city on platform internationalisation, respectively. Both urban variables display statistically insignificant results, which remains consistent in the final Model 8.

Models 4-7 test for the effect of institutional variables on internationalization. The results show the expected positive effect of innovation -enhancing institutions on platforms' internationalization, both in Model 4 and in the final Model 8. The coefficients in the final model indicate that the degree of internationalisation is exp(0.500)=1.65 times higher in countries with innovation-enhancing institutions. No significant effect, however, was detected for competition-enhancing and venture capital institutions in the home country on the internationalisation rate of platforms. Finally, labour market flexibility turns out to be significant only in Model 8, with an effect similar to that of the innovation and competition dummies, in that the degree of internationalisation is exp(0.418)=1.52 times higher in countries with flexible labour markets than in countries with inflexible labour markets.

We perform another regression on internationalisation, where we replace institutional variables with dummy country variables, for each country in our dataset. Table 3.7 provides the regression results. Similar to the previous regression in table 3.6, we find negative and statistically significant results for the founding year and cooperative form. Medium-level platforms are also have positive and statistically significant results, as do platforms that provide home and professional services. Furthermore, we see a positive and significant result (albeit at p=0.1), for those platforms providing freelancer services.

Again, Model 2 and Model 3 test for the effect of population size and capital city on platform internationalisation, respectively. Both urban variables display statistically insignificant results, which remains consistent in the final Model 4.

Model 4 tests for the effect of country level variables. Interestingly, we see that 4 countries stand out as having a significant and positive effect on platforms internationalisation rates: Finland, Estonia, Slovenia and, to a lesser degree, Germany. The former are all small countries with a high degree of digitalisation, who invest significantly in new technologies as part of their economic development strategy. Germany on the other hand in the biggest European market, with Berlin concentrating a large number of VC investors and entrepreneurs.

3.4.3 Hypotheses testing

Our analyses allow us to draw some conclusions about the process of labour platform founding and subsequent internationalization. Starting from our hypothesis on the effect of urban variables on founding and internationalization, we see a positive association between city size and capital cities on the one hand and the founding rates of labour platforms in European cities on the other. Urban centres

with larger population experience a higher degree of new platform creation, with the effect being even larger for capital cities. Subsequently, we confirm hypothesis 1A and 2A. The opposite holds true, though, for the effect of city size and capital cities on platform internationalization. Platforms being founded in large cities and in capital cities did not experience higher rates of internationalization when compared to platforms from less populated or non-capital cities. Thus, we reject hypothesis 1B and 2B.

Interestingly, the institutional conditions all seem to affect labour platforms, but not in the same ways. Cities in countries with well-developed venture capital institutions see more foundings, but platforms in such countries do not internationalise more than in other countries. Reversely, cities in countries with innovation-enhancing, and flexible labour market institutions do not experience more foundings, but platforms founded in these countries experience more internationalization later on. This indicates that these institutions primarily support the upscaling of platforms rather than their founding *per se*. Finally, the existence of competition-enhancing institutions in the form of lower barrier for market entry, does not affect either founding or internationalisation rates. Overall, we can therefore only partially confirm the four institutional hypotheses (3A-6A) regarding the location choice of labour-platform start-ups and the four institutional hypotheses (3B-6B) regarding their internationalisation.

3.5. Concluding remarks

In this article we attempted to explain the urban founding rates and the internationalization of on-location labour platforms through the lens of geography and institutions. Despite their online nature, labour platforms providing on-location services are still bounded by the geographical and institutional conditions that affect their operations. This effect is prevalent in the location choice of start-ups and the propensity to expand across borders, two processes which are closely interconnected in the literature on Born Global multinationals (Zander et al., 2015).

The urban size and capital status of a city is shown to affect only the number of foundings of new labour platforms in cities. Platforms that were founded in large cities and capital cities did not, however, experience higher rates of internationalisation hereafter. We understand large cities to provide both the supply and the demand conditions that support labour platform to found their business by kick-starting their operations in a particular city. Entrepreneurial talent, specialized labour, investment capital and learning opportunities are all more likely to be found within large urban centres compared to smaller cities. The effect is further accentuated for capital cities, as they tend to concentrate more of those supply factors. What is more, large cities provide the pool of gig workers and the pool of urban clients that constitute both sides of a labour platform and generate the cross-side network externalities, that sets in motion the local growth

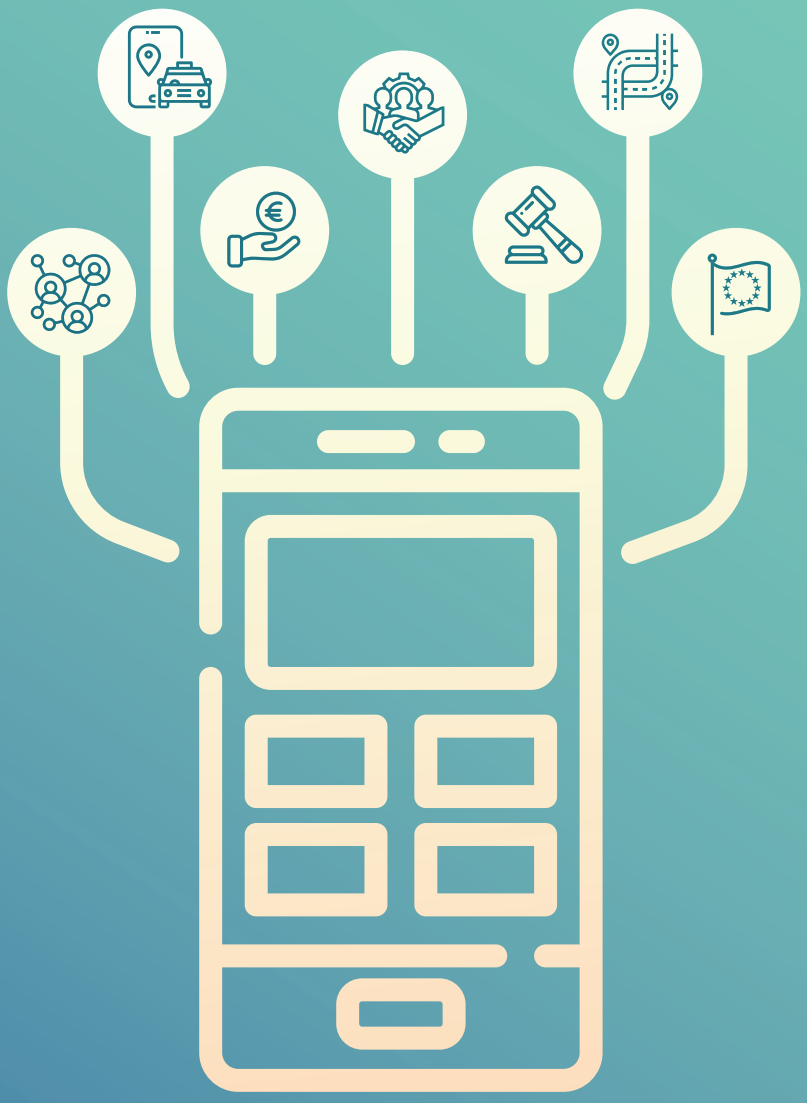
of a platform. However, when looking at the internationalisation of platforms across national borders, no effect of size and capital status of the city of origin was found.

Regarding the effects of national institutions, we found that the institutions that support founding, did not support internationalisation and *vice versa*. Venture capital institutions promote the founding of new labour platforms but not the subsequent internationalisation of these platforms. By contrast, innovation-enhancing, and flexible labour market institutions promote internationalisation, but do not affect the urban founding rates of new labour platforms. Our research thus expands on the Born Global literature by probing the national institutional conditions of platform founding and internationalisation. While previous research has indicated that a labour platform like Uber seeks innovation-enhancing and competition-enhancing conditions (Kim & Suh, 2021; Punt et al., 2021), our results did not find evidence that such conditions trigger more foundings of labour platforms. Only the availability of venture capital constitutes an exception and example of a favourable institutional condition to set-up new labour platforms. We understand this effect to reflect the need of labour platforms for venture capital, not only to cover their software development costs but also the expenses associated with urban marketing campaigns and discounts to attract both workers and clients to kick-start the platform.

Regarding internationalization, previous case studies emphasized that labour platforms may face institutional frictions as a result of a mismatch between their original business model as built up in a home country and the institutional environments in host countries (Thelen, 2018; Uzunca et al., 2018). Friction by itself thus impedes the process of internationalization increasing the cost and risks of expanding across borders. We contribute to this discussion by examining a number of institutional conditions in the home country that may support the internationalisation of labour platforms. Societal capacities for adaptation and innovation come up as supporting factors, while – surprisingly – we did not find any evidence that venture capital institutions or competition-enhancing institutions support international expansion. The latter could be explained by platform's ability to find innovative ways to overcome entry barriers faced by traditional corporations. Flexible labour market regulations that are more compatible with the standard business model of labour platforms centred on self-employed individuals, also support internationalisation. Taken together, we interpret our results to reflect that platforms experiencing fewer institutional frictions locally during the early stages of operation, can better focus resources on establishing local market share early on. This, in turn, supports international expansion through reputational gains, international brand recognition, and access to foreign venture capitalists.

We hope our research inspires more research combining insights from economic geography, international business and platform economy studies.

Our statistical research intended to reveal some of the patterns of platform entrepreneurship across European cities and countries, which can be further scrutinized and triangulated through in-depth case studies of specific cities and labour platforms, as well as through similar studies of other types of platforms in the sharing economy or e-commerce business. More research on the topic of platform economy is needed to better understand the specifics of platforms as new organizational forms disrupting markets and cities alike. In the light of the ambition of the European Commission to become less dependent on American and Chinse platform giants (Codagnone et al., 2021), more insights into platform start-ups and their internationalisation processes will also help to further substantiate the policy ambitions of the commission and the member states.



CHAPTER 4

Pulling the Brake: Worldwide Institutional Reactions to Uber's Entry

Abstract

Gig economy platforms connecting workers with clients in cities invoked many negative institutional reactions including prosecution, court cases, novel regulations, and platform bans. This study analyses the effect of national institutions on the number of negative institutional reactions that gig platforms may encounter in countries worldwide. We distinguish between institutions relating to the rule of law, institutions supporting innovation, and institutions relating to labour protection. Focusing on Uber as an exemplary gig platform, our results show that Uber encountered most negative institutional reactions in countries with a strong rule of law. Support for innovation and stringent labour protection had no effect on the volume of negative reactions. We thereby contribute to the institutional literature highlighting the role of the rule of law in resistance against disruptive innovations.

4.1 Introduction

The advent of the platform economy is one of the major transformations in modern economies. Platforms become the main mediators of economic transactions in many industries and play a prominent role in the way we interact, shop, communicate and socialize. Internet platforms could be defined as the online intermediaries of social and economic interactions, often through the use of apps (Kenney & Zysman, 2016). Within the broader universe of platforms, one sub-group takes the form of onsite gig platforms matching platform workers with local clients for a variety of onsite services, such as taxi (e.g. Uber), food delivery (e.g. Deliveroo), homecare (e.g. care.com) and domestic cleaning (e.g. Helpling). The ensemble of such platforms is commonly referred to as the gig economy, defined as: "ex ante specified, paid tasks carried out by independent contractors mediated by online platforms" (Chapter 2, p.26). In contrast to traditional corporations, gig platforms do not employ their workforce, but rather connect gig workers as 'independent contractors' to clients. This practice has become controversial in many countries, as unions and scholars argue that such platforms should be seen and regulated as employers and their workers as employees given the control over work exercised by the platform and its algorithms (De Stefano & Aloisi, 2018; Frenken & Fuenfschilling, 2020; Ilsøe, Jesnes, & Hotvedt, 2020). What is more, gig platforms have been criticized for by-passing sectoral regulations (De Stefano & Aloisi, 2018; Thelen, 2018; Pelzer et al., 2019).

Despite these criticisms, gig platforms have grown rapidly during the last decade. A key aspect, which sets gig platforms apart from most traditional multinational corporations, is their ability to rapidly scale-up their operations. While onsite labour markets are geographically confined to distinct cities, successful gig platforms manage to roll out their online service across cities internationally in just a few years. Importantly, this international expansion of gig platforms is not predicated upon the accumulation of a critical mass of resources as they do not hold the assets being traded nor do they employ their gig workers. What is more, while platforms face rather high fixed costs associated with app development, they incur rather low variable costs associated with onboarding additional gig workers and clients. These features motivate platforms to follow a 'born global' strategy (Knight & Cavusgil, 2004), proliferating rapidly across national borders prior to the consolidation of their domestic markets.

The rapid international expansion of online platforms is primarily driven by considerations of capturing a substantial increasing market share to benefit as an early mover from positive network externalities that are typical for platforms (Parente, Geleilate, & Rong, 2018). As a consequence, compliance with government regulations plays a secondary role for platforms, and is usually dealt with at a later stage – known as the Silicon Valley approach "don't ask permission, ask forgiveness" (Kenney & Zysman, 2016, p. 67). This does not mean that platforms would not

meet with institutional resistance after they enter a new market. Many case studies have documented the institutional responses to gig platforms in various countries, particularly in the taxi and food delivery sectors. In many countries worldwide, gig platforms met considerable resistance from a variety of actors (regulatory agencies, taxi drivers, unions, and politicians) leading to a variety of responses (prosecution, court cases, adapted regulations, bans) (Thelen, 2018; Uzunca et al., 2018; Pelzer et al., 2019; Tassinari & Maccarrone, 2020; Yuana et al., 2020; Davis & Sinha, 2021; Heeks et al., 2021; Sanchez et al., 2022; Seidl, 2022).

Despite the variety of case studies on institutional reactions encountered by gig platforms, the lack of research on a global scale deprives us of a more general understanding of how national institutions respond to the introduction of platforms transacting on-site gig jobs. Using country data at a global scale, this paper aims to statistically explore the effect of formal national institutions on the resistance met by gig platforms. Considering the wide range of institutions affected by the operations of gig platforms, we pose the following research question: *What formal institutions affect the likelihood of negative institutional reactions towards gig platforms?*

To this end, we first provide a theoretical framework (section 2) to analyse the institutional reactions to gig platforms across countries worldwide. Subsequently, we present our data collection and the statistical methods used (section 3). We then present the results (section 4) and provide a summary as well as our conclusions (section 5).

Empirically, we focus on the taxi platform Uber, as the most prominent example of a gig ride hailing platform which experienced rapid expansion and encountered various types of regulatory frictions in many national contexts, which has also been the subject of single and comparative qualitative case studies in Egypt, Germany, Indonesia, Nigeria, The Netherlands, Sweden, United Kingdom and United States (Thelen, 2018; Uzunca et al., 2018; Pelzer et al., 2019; Davis & Sinha, 2021; Seidl, 2022). Uber's disregard of taxi regulations resulted in severe protests from licensed taxi drivers and prompted regulatory action in a large number of countries. Furthermore, and similar to the reactions towards gig platforms in the delivery and cleaning sectors, Uber was seen as disruptive for existing employment regulations (as Uber considers drivers to be independent contractors while exerting algorithmic power over them), tax authorities (as drivers may not pay taxes for their gig income) and national social security systems (as drivers may lack social security and protection against dismissal by Uber).

4.2 Theoretical framework

Gig platforms for onsite services embody innovative intermediation services that match 'independent contractors' with clients online in a variety of sectoral

contexts, including taxi, delivery, babysitting, and domestic cleaning. In doing so, they lower the transaction costs involved in the respective labour markets for gigs (e.g., a taxi ride, a delivery, a babysit, a cleaning job, *et cetera*). At the same time, such platforms 'disrupt' the already existing institutional arrangements in the specific national, sectoral context at hand. In particular, those gig workers that offer their services online may not hold the same licenses, qualifications, experiences, tax requirements or social protection as those offering their services through other arrangements, such as traditional employment by firms or flexible hiring contracts by temp agencies.

Uber was one of the first and is today one of the most known platforms whose app proved very popular among drivers and clients alike. Uber's innovation experienced rapid diffusion across all continents, but without institutional embeddedness in the regulatory environments of the countries it entered (Thelen, 2018; Uzunca et al., 2018; Pelzer et al., 2019; Davis & Sinha, 2021). From an early stage, Uber followed a strategy of aggressive expansion across the globe. Unsurprisingly, those actions did not remain without resistance from governments and other stakeholders, by whom Uber was not seen as an innovative 'tech company' but rather a disruptor of a well-regulated market.

While Uber essentially used the same service – matching unlicensed drivers to clients via its app – in countries around the world, different points of friction and institutional responses consequently occurred in different countries. Accordingly, Davis and Sinha (2021) speak of "Varieties of Uberisation" between those countries where Uber (and other ride-hailing platforms) were introduced, as diverse pre-existing institutional arrangements resulted in diverse responses to this new service. For example, in Nigeria, where prospective drivers have limited access to formal finance or insurance, Uber filled this institutional void by developing its own finance and insurance services to compensate for the lack of resources. In Indonesia, by contrast, local transportation markets were controlled by driver gilds, and Uber would open local offices in order to facilitate communication with drivers and leaders. Such striking differences were also found in the earlier study by Thelen (2018) on Germany, Sweden and the United States. She concludes that Uber's entry triggered the mobilization of different social actors and the formation of different coalitions, resulting in different institutional responses ranging from accommodation to an outright ban. Looking at Uber in Egypt, the Netherlands and the United Kingdom, Uzunca et al. (2018) found that the degree of institutionalization of the pre-existing taxi market shaped the platform's legitimization strategy and institutional outcomes. By entering a country with lower levels of institutionalization, platforms can leverage their efficiency by addressing societal challenges in order to increase their legitimacy and shape the institutional environment in their favour. The opposite is the case in those countries characterized by higher levels of institutionalization, where a disruptive platform like Uber – despite initial enthusiasm about the quality of

service – failed to gain legitimacy, eventually leading to the platform's ban. The case study by Pelzer et al. (2019) on Uber in The Netherlands further shows that the institutionalization of existing taxi companies, enforced through advanced compulsory taxi meters, provided a barrier for Uber to get its controversial service with unlicensed drivers accepted by the authorities.

What these case studies on Uber, as well as case studies on other ride-hailing (Heeks et al., 2021) and food delivery platforms (Tassinari & Maccarrone, 2020; Yuana et al., 2020; Sanchez et al., 2022) have in common, is the finding that negative institutional reactions to gig platforms can be related to the lack of legitimacy of these platforms amongst their various stakeholders. Suchman (1995, p. 574) defines legitimacy as the: *"generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions."* As the latter are usually conceptualized as the building blocks of institutions, we here understand legitimacy as conditioned upon the compatibility of an innovation with its institutional context.

Following Suchman (1995) and Pelzer et al. (2019), one can identify three relevant forms of legitimacy that gig platforms can pursue to gain legitimacy for their innovation: namely cognitive, pragmatic, and moral legitimacy. *Cognitive legitimacy* can be defined as the passive support for a phenomenon stemming from the availability of cultural models which allow its interpretation. Second, *pragmatic legitimacy* stems from the direct material rewards that actors draw from the business. Finally, *moral legitimacy* results from the positive evaluation of the phenomenon against a set of values and principles, thereby judging whether actions are considered to be right or wrong. All three forms of legitimacy may turn out to be important for the successful establishment of a new business. The lack of any of these three forms of legitimacy can prove detrimental in a business' effort to establish itself as an accepted actor and to embed itself within the institutional order. Some argued that moral legitimacy holds a more central position as it is materialized in congruence with formal and informal norms (Deephouse & Suchman, 2008). Critically though, normative evaluations do not happen automatically or on their own. Rather, they are generated by social institutions (e.g. court of law, public media) which access and evaluate other actors, resulting in normative judgements over their broader legitimacy (Bitektine & Haack, 2015). Thus, in order to understand how a specific firm creates legitimacy, we have to examine its interaction with the institutions which define its environment.

While legitimacy in itself is rather hard to identify, the lack thereof is manifested in the form of opposition and negative reactions towards its objectives (Nunan & Di Domenico, 2021). As legitimacy is the product of the interaction with the institutional environment, more complex environments with more actors increase the probability of friction. What is more, countries differ in their institutional set-up in multiple dimensions (Thelen, 2018, Davis & Sinha, 2021) as well as in the degree to which the incumbent businesses are institutionalized

and legitimized (Pelzer et al., 2019). This diversity is also demonstrated in the different discursive representations within the broader context of digitalization (Marenco & Seidl, 2021).

More specifically, one can distinguish between three types of national institutions that may affect the legitimacy-building process of gig platforms (Punt et al., 2021): institutions relating to the rule of law, institutions supporting innovation, and institutions relating to labour. Importantly, previous studies have investigated which of these institutions affect the entry time of a platform in a country, assuming that platforms prefer to enter first in countries with favourable institutions in order to avoid negative institutional responses (Kim & Suh, 2021, Punt et al, 2021). In the present study, by contrast, we look at the post-entry effects of these institutions by investigating the actual institutional responses that follow after the platform entered a country.

4.2.1 Rule of law

Theories on Multinational Corporations (MNCs) often emphasize that the rule of law – understood as the enforcement of contracts, property rights and the provision of security (Haggard, MacIntyre, & Tiede, 2008) – is important for foreign companies to operate properly. Institutions strengthening the rule of law can have effects both on the decision of MNCs to enter a particular country and on its post-entry operations. The effect on entry is best reflected in the location choices that MNCs make regarding their future expansion. When selecting new countries for expansion, MNCs prefer to avoid countries characterized by weak political institutions, as institutional volatility increases the risk of failure and could raise investment costs (García-Canal & Guillén, 2008). Furthermore, MNCs tend to avoid countries with weak legal systems and high levels of corruption (Grosse & Trevino, 2005).

The rule of law is particularly important as it can substantially hamper entrepreneurship whenever firms struggle to enforce contracts or secure patents (Contractor, Dangol, Nuruzzaman, & Raghunath, 2020). Furthermore, corruption can be a significant impediment to business as firms have to deal with unpredictable costs and burdens (Bahoo, Alon, & Paltrinieri, 2020). Interestingly though, the opposite may be the case for firms whose business model is built on the disruption of traditional industries. As traditional firms are already embedded in national institutions, disrupting firms actively need to find their place within the existing regulatory framework, which can limit their growth prospects.

Considering that regulations are always embedded within a broader institutional framework, and given that their enforcement is conditioned upon the existence of a robust rule of law, we assume that disrupting gig platforms, like Uber, will face more institutional friction in countries with a strong rule of law. Platforms may even intentionally seek to exploit inconsistencies in the regulatory

framework, as a means of achieving first mover advantages and gaining a solid market foothold (Nunan & Di Domenico, 2021). Indeed, Uber's business model did not cause the same degree of disruption across different countries, raising different regulatory questions in different country contexts that were specific to the unique institutional framework it encountered (Thelen, 2018). Considering the disruptive nature of Uber's operations, the platform could thus face more reactions in places with a strong rule of law, providing more, and more efficient, legal avenues for other societal actors to turn against the platform. We thus expect that:

> **Hypothesis 1:** Gig platforms are more likely to face negative reactions in countries with a stronger rule of law.

4.2.2 Openness to innovation

Another set of institutions that may affect the institutional responses to a platform's disruptive operations is the degree of an economy's openness to innovation and the quality of market regulation. The existence of innovation-friendly attitudes in the society, as well as pro-innovation institutions and policies, signal a more accommodating environment for innovative businesses in general and platforms in particular (Interian, 2016; Punt et al., 2021). And, reversely, the existence of barriers to entry and restrictions on economic activity act as a disincentive for MNCs (Djankov, McLiesh, & Ramalho, 2006). Despite the fact that platforms would provoke different conflicts in different countries, the reference to gig platforms as innovative was common across various jurisdictions (Thelen, 2018). In fact, part of Uber's communication strategy was to use the innovative aspects of its business model as an argument in its attempt to create legitimacy (Pelzer et al., 2019). We thus assume that the existence of pro-innovation in the society will help gig platforms to minimize regulatory friction. Accordingly, we expect that:

> **Hypothesis 2:** Gig platforms are more likely to face negative reactions in countries which are less open to innovation.

4.2.3 Labour protection

Labour market institutions form the third set of institutions which can stimulate negative institutional reactions towards Uber. The issue of employment classification of gig workers has become a core issue in the debate surrounding gig platforms – and a recurring point of conflict with formal institutions (Chapter 2). Particularly in the case of ride-hailing and food delivery, platforms exercise various forms of control over drivers, for example regarding the allocation of rides, price setting and the possibility of banning workers from the app (Heeks et al., 2021). This is the reason for why some stakeholders argued that platform workers should

not be classified as independent contractors but rather as employees of the gig platform (De Stefano & Aloisi, 2018; Frenken & Fuenfschilling, 2020; Ilsøe, Jesnes, & Hotvedt, 2020). Trade unions, in particular, have been vocal in their opposition to the gig economy, which they regard as subversive to established employment rights (Tassinari & Maccarrone, 2020). We therefore expect that gig platforms will experience more negative institutional reactions in countries with stricter labour market regulations, more social protection and higher unionization rates:

> **Hypothesis 3:** Gig platforms are more likely to face negative reactions in countries with more stringent labour market regulations.

4.2.4 Informality

As Aristotle famously wrote, *"nature abhors a vacuum"*. In the absence of robust formal institutions, informal institutions tend to spring up and fill the void (Mair et al., 2012). Research shows that, in countries with low degrees of institutionalization of the labour market, platforms can bridge the gap by introducing formal rules, training and some degree of security (Frey, 2020; Surie, 2017). In the case of Egypt, for example, Uber provided a new source of employment for young drivers, while it improved transportation safety for women by enforcing rules against sexual harassment (Uzunca et al., 2018). Those actions increased the platform's legitimacy amongst the public and politicians, thereby stifling opposition from entrenched interests. Especially in emerging economies with large informal sectors, platforms draw from the informal workforce in business such as taxi, delivery and cleaning. By providing operational assistance and reliable infrastructures, platforms actively build trust with gig workers as well as with clients, effectively substituting formal institutions (Heeks et al., 2021; Weber, Okraku, Mair, & Maurer, 2021). Consequently, one can assume that gig platforms will face less resistance in places with high degrees of informality in employment as disruption is more limited. We thus expect that :

> **Hypothesis 4:** Gig platforms are more likely to face negative reactions in countries with lower degrees of labour informality.

4.3 Data and methods

4.3.1 Dependent variable

Our study focuses on Uber as one of the largest gig platforms operating in all five continents. Uber was launched in 2012 in the United States and introduced an app to replace traditional ways of booking a taxi through call centres or street hailing. In its most common form, named UberPop across European countries and UberX in most other countries, anyone was eligible to work as a driver via the Uber

app with their private-owned vehicle. Drivers were operating as independent contractors, tied with the company through a 'partnership' agreement. Drivers were free to decide when to work and for how many hours. Prices, however, were set by the Uber app, including a fee for the use of the app.

While Uber's introduction to a new country follows a pattern of city-by-city expansion, the cases studies showed that institutional reactions most often came from national actors, such as regulatory agencies, unions and national politicians (Thelen, 2018; Uzunca et al., 2018; Pelzer et al., 2019; Davis & Sinha, 2021). We therefore took the country-level as the level and unit of analysis, sampling all those countries where Uber has introduced its controversial UberX service with unlicensed drivers.

We used two different dependent variables in order to measure the likelihood of negative institutional reactions, namely volume and time-to-event. First, we counted the volume of negative institutional reactions as the sum of all negative institutional reactions for each country within the period under examination. If an event (negative institutional reaction) is more likely to take place, the count of such events will be higher given the time that Uber is active in a country. More specifically, this time period is defined per country as the first moment that Uber introduced its UberX service until the end of our period of observing Uber (February 2017). Second, for each country we counted the time (in months) from the introduction of UberX until the first negative institutional reaction takes place. In this case, a higher likelihood means that the first negative reaction will occur sooner after Uber has entered a country.

Our data collection built on Punt et al. (2021), who documented the global expansion of UberX up until February 2017 at the city and country levels. Using their data as the basis for our country sample, this led to a list of 76 countries spanning five continents, with a peak of entries in 40 countries in 2014 alone. Note that our use of the entry data collected by Punt et al. (2021) implies that we did not take into account the countries that Uber may have entered after February 2017.

We then used a set of keywords in Google search in order to identify all institutional reactions related to Uber's presence in those 76 countries up. Google's search engine was deemed preferable over alternative ways to search for news reports on Uber, because official media databases (like Lexis-Nexis) contain only a limited number of sources for a limited number of countries, which together would limit our data collection process. This search was carried out on 25 November 2021. For all countries, the search period for which information on negative institutional reactions was collected, is the period between the day of Uber's market entry in a country and the day we executed the search queries (25 November 2021).

To limit the number of search results, we did not simply search for 'Uber' but complemented the search with 'banned in' and with 'labor/labour'. In this way, we filtered out adverse institutional reactions related to a possible ban and related

to the issues of labour classification and labour protection. We complemented our search terms with both the country names and the city names where Uber entered, taken from Punt et al. (2021). We used the city names as well, because articles about Uber operating in particular cities may not mention the country in question. More precisely, we used four search strings: {'Uber banned in' AND [country-name]}, {'Uber banned in' AND [city-name]}, {'Uber' AND '(labor OR labour)' AND [country-name]} and {'Uber' AND '(labor OR labour)' AND [city-name]}. For every set of results, the first five pages were searched, resulting in 50 results per hit. Each of these results was checked for relevance and those selected were included in our data. Further research was done in cases where a reaction was coded within another article, using tailor-made keywords. We explicitly excluded the (many) reactions by trade unions as these are beyond the scope of our research, unless their reaction was combined with another institutional reaction, for example, when the union filed a lawsuit. All reactions were further grouped in the categories shown in Table 4.1.

Table 4.1. Types of Institutional Reactions

Type	Description
Ban	Every administrative action that results or intents to result in the halt of Uber's operations
Police Enforcement	The use of police enforcement measures, such as fines and impounding of vehicles, often targeting Uber drivers
Administrative Enforcement	The use of administrative measures aiming at the enforcement of regulations on Uber
Court Case	Every court case/lawsuit ruling with reference to Uber's activities
Uber Regulation	New regulations/laws or amendments to existing ones which affect Uber
Denial of Permit	The denial of Uber to operate legally within a jurisdiction

We divided all reactions between negative and positive reactions. Negative reactions are those that (potentially) hamper Uber's operations, such as limiting regulations, police prosecutions of Uber drivers, and court cases lost by Uber. Overall, we identified 291 institutional reactions to Uber in 65 out of 74 countries in our list. From those, 250 were classified as negative and only 41 as positive. Positive reactions include those that support Uber's operations, such as new regulations that permit Uber to use unlicensed drivers or court cases won by Uber, and are excluded from the analysis. For our dependent variable, we selected only those reactions that were classified as negative, because we are interested in explaining how institutions react to the disruptive nature of the UberX app for unlicensed drivers. Thus, the dependent variable is the count of negative reactions occurring in each country.

4.3.2 Independent variables

To test our hypotheses, we used three sets of independent variables, similar to those of Punt et al. (2021) distinguishing between political institutions, economic institutions, and labour market institutions. Data were taken from the Institutional Profiles Database (IPD) 2016, which contains 130 indicators of institutional characteristics for 143 countries. The dataset is composed of country-level indicators, measured on a continuous scale from 0 to 4.

The first set of three indicators is focusing on political institutions, using those which are connected to the rule of law, namely, "function of the justice system", "level of corruption", and "influence of economic stakeholders". These indicators are relevant to our study as Uber's entry almost universally raises a number of legal and regulatory questions which are usually resolved through legal avenues. For the first indicator, higher scores indicate a well-functioning justice system, while reverse coding is used for the latter two: with higher scores indicating lower levels of corruption and less influence of economic stakeholders on the formation of economic policy. Regarding the second indicator, lower levels of corruption reflect a stronger rule of law. The third indicator measures the lobby influence of various stakeholders, such as foreign companies and sectoral groups in the formation of economic policy within a state. Lower levels of lobbying result in a stronger rule of law.

To test the hypothesis on the effect of openness to innovation, we used a second set of three indicators from the IPD dataset, namely, "barriers to market entry", "public support for innovation" and "competition regulation". The first indicator is reversely coded, with higher values indicating a lack of barriers for new competitors to enter the markets for goods and services. The other two are normally coded with higher values indicating increased state support for innovation and the existence of an efficient system of market regulation. Again, the choice of indicators for formal economic institutions reflects the specific issues surrounding Uber's entry of a new market. With Uber framing itself as an 'innovation company', which attempts to draw legitimacy from 'breaking up monopolies' and challenging established competition law, all three indicators are essential to this study.

Finally, we used a set of four indicators capturing employment regulations in an attempt to explore the implications of labour institutions on the entry of Uber. These indicators include "trade unions freedoms", "compliance with employment law (formal sector)", "employment contract protection", and "effectiveness of social dialogue". For all four indicators, higher values indicate a stronger presence of the respective institutions. More specifically, the first indicator measures the ability of trade unions to freely exercise their operations and rights; the second variable measures the degree of respect of minimum wages in the formal sector; the third indicator refers to the share of permanent contracts and the protection

against dismissal; and the fourth variable refers to the degree of effectiveness of the social dialogue amongst companies, industries and countries.

The final indicator taken from the IPD database is the "significance of informal work". It is reversely coded, with lower values expressing a higher degree of informal labour. We used this variable to test the hypothesis that gig platforms are more likely to face negative reactions in countries with lower degrees of labour informality.

We deemed this set of indicators to be most 'parsimonious', in the sense that these indicators are most representative of the institutions that we are interested in. Parsimony is particularly important as the inclusion of more indicators risks to raise multi-collinearity problems, thereby increasing the risk of overfitting the data in relation to the (limited) number of observations.

Finally note that all indicators measure institutions at a specific moment in time. The IPD 2016 dataset is well suited for our research as it provides information on institutions which coincides with the time of Uber's entry in many countries. Given that institutions hardly change in the short-run, the IPD indicators are particularly suitable to measure the independent variables.

4.3.3 Control variables

We also included a number of control variables in our models. The first is "English" as an official language spoken in the respective country. We thereby controlled for any possible bias in the data collection of our dependent variable, given that our Google search was carried out in English only. That is, we can assume that there is a higher probability of accessing news about a specific event if this is reported in English, and there is a higher chance of reporting in countries where English is an official language. As we only used keywords in English to identify institutional reactions to Uber, we may have omitted cases expressed in other languages. To control for this potential effect, we created a dummy language variable combining data from NCSU and the CIA Factbook.

Second, we computed the variable "Time active" as the number of months that Uber was active in a country. This variable controls for the fact that longer presence would simply increase the probability of any institutional reaction taking place. We computed the variable by identifying whether Uber exited a country and, if so, in which month. Exit dates were identified using a similar process to that of the collection of the dependent variable, namely Google search with keywords {'Uber' AND 'exit' AND 'country name'}. The Time Active in a country that Uber exited was thus measured as the number of months Uber was active in that country between the month of entry and the month of exit. For the majority of cases where Uber remained active until the end of our study in November 2021, the Time Active in a country is the number of months between Uber's entry date and November 2021.

Third, we created a dummy variable "Competing platform" to account for the existence of other competing platforms before Uber's entry into a country. The presence of other platforms could possibly affect the number of institutional reactions in general, as competing platforms may have already raised similar regulatory issues before Uber entered. That was mostly the case in non-Western countries where local players managed to establish a foothold before Uber. To identify the presence of competing platforms, we read into the news articles from our dataset to locate instances which included Uber and another competing platform in the same text. Furthermore, we drew this information from general articles documenting competing platforms for Uber.

Fourth, we used a final control variable "Regional spillovers" in order to account for the spillover effects of negative reactions within a continent, resulting from policy diffusion between countries sharing political, social and cultural similarities (Bennett, 1991). Policies and regulations tend to diffuse internationally through emulation, elite networking, harmonization through international regimes, or penetration by external actors or interests. Especially when faced with novel challenges, such as the gig economy, regulators may rely on copying best-practice solutions that other countries have already enforced. The regional spillover variable measures the cumulative number of negative reactions that have occurred in countries within the same continent at time *t*.

4.3.4 Regression models

In order to test our hypotheses, we performed Negative Binomial regression to explain the count of negative reactions, and Cox regressions to explain the time to the first negative reaction occurring, both in R. We used a Negative Binomial (NegBin) regression to account for the particular nature of the dependent variable which demonstrates a right-skewed distribution with the variance exceeding the mean. Cox models are suitable for studying the impact of time-varying covariates on the risk of a specific event occurring, in this case the first instance of a negative reaction to Uber in a country. For our analyses, Cox regressions are further useful as they account for the right-censored cases in our data, namely those countries which exhibited no reaction to Uber's presence during the timeframe covered, whereby this might still occur at a later stage. Time is measured in months. We use an extended Cox model because we include one time-varying variable in our analysis, which would result in a violation of the proportional hazards assumption of a regular Cox proportional-hazards model. The time-dependent variable here is the "Regional spillover" variable measuring the cumulative number of negative reactions that have occurred in countries within the same continent at time *t*. This variable is thus included in the extended Cox model, but cannot be included in the NegBin model.

In order to check for possible multi-collinearity, we ran VIF tests and found that values were well below 5, indicating that there are no multi-collinearity concerns.

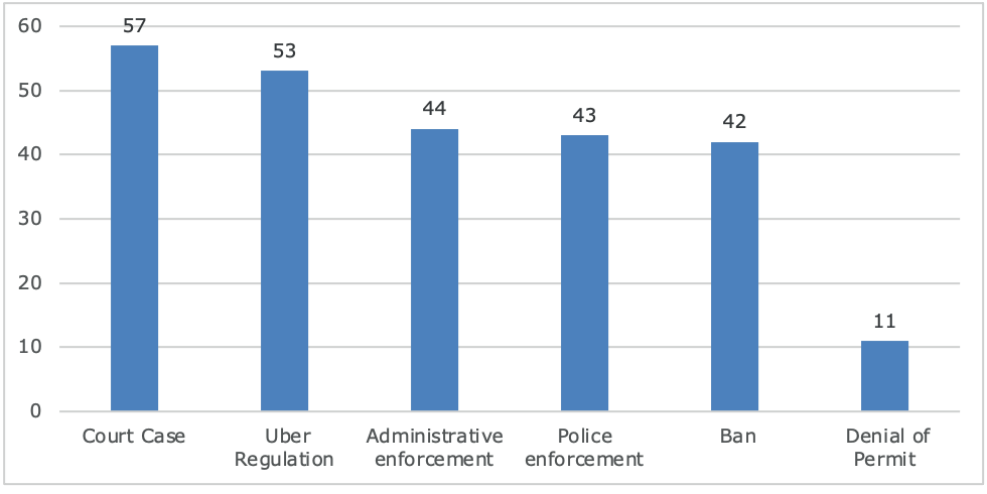
4.4 Results

4.4.1 Institutional reactions

Our research on the institutional reactions to Uber's introduction revealed a total of 291 incidents, with 250 of them being classified as negative. Out of a population of 75 countries, we recorded at least one negative reaction in 65 of them. The average number of negative reactions per country is 3.4, the median is 3, whereas the maximum is 26 for the case of Canada.

In Figure 4.1, we show the number of reactions of different types. In our dataset, the most prevalent type of reaction is *Court Cases* with 57 observed instances. Uber faced a wide range of legal complaints across different countries, which broadly reflect the range of regulatory questions created by the introduction of the platform. They were launched either by institutional actors in an attempt to punish the platform for what they considered violations of existing laws, or by individuals in an attempt to force the company to conform to the legal framework and/or seek damages suffered from Uber's operations. In France, for example, public prosecutors filed a criminal case against Uber's French subsidiary in June 2015 for running an unlicensed taxi service, resulting in the arrest of Uber's management executive. Another significant share of court cases concerned the employment status of Uber drivers, with the case Uber vs Alsam in the United Kingdom in October 2016 as the most prominent among one. In the Netherlands, the issue of employment misclassification was subjected to judicial review in September 2021, with the plaintiff not being an individual but the major Dutch trade union FNV.

Figure 4.1: *Typology of institutional reactions.*



The second most common reaction to Uber, was the introduction of new *Uber Regulations* by national or local authorities, targeting the platform and other taxi apps. Overall, we recorded 53 instances of new regulations which had a negative effect on the platform's operations by prohibiting at least one aspect of its original business model, thus increasing operating costs. Examples include, amongst others, installing taxi meters in Uber cabs, mandatory licensing of drivers, and the obligation to return to base following every trip. In these ways, regulators attempt to create a level-playing field between Uber and the incumbent taxi industry, which almost universally protested against what they saw as unfair competition from a multinational circumventing existing taxi regulations.

Administrative Enforcement constitutes a third category of reactions, which appeared 44 times in our database. More specifically, authorities took various measures to contain the platform, for example by issuing formal orders to comply, by imposing fines on Uber, by issuing rulings against the legality of its activities, or even by raiding the company offices as part of an investigation. For example, in April 2016 the local government of New Delhi in India banned the practice of surge pricing during high demand. In Amsterdam, home of Uber's Europe subsidiary, Dutch authorities raided its offices in September 2015 as part of an investigation against Uber's operating practices. Another interesting aspect is the enforcement of competition regulations against Uber. In August 2018 for example, Philippine anti-trust authorities imposed a fine on the platform for its unauthorized merge with the competitor platform Grab.

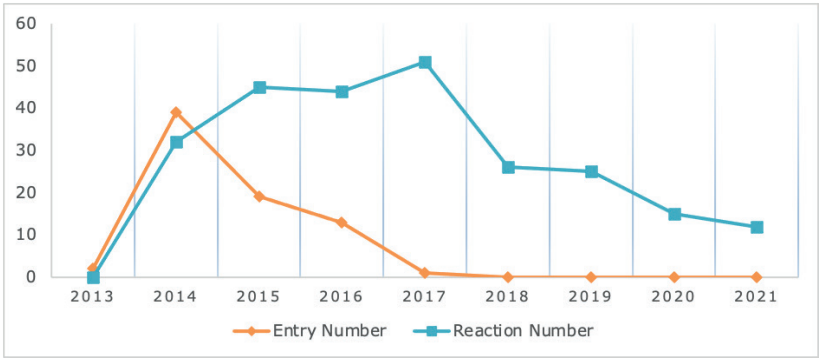
A fourth type of reaction constitutes *Police Enforcement* of transportation regulations, which occurred in 43 instances. These reactions were primarily based on Uber's characterization as an illegal transportation company, leading to police measures curbing Uber's activities on the road. Subsequently, Uber drivers became the prime targets, with the police issuing fines for illegal work, confiscation of vehicles and occasionally further criminal charges against drivers.

As a fifth category, we identified direct *Bans* of Uber's operations with 42 instances in total. Bans are issued by local, regional or national administrations or transportation authorities. They aim at imposing an immediate stop of Uber's activities within their respective jurisdiction. As Uber rarely asked for formal permission or approval before entering a new jurisdiction, several authorities responded by issuing cease-and-desist orders. Interestingly though, a direct ban rarely had the anticipated effect as Uber either challenged those measures judicially or ignored them for a prolonged period of time.

As a last and smallest category of institutional reactions, we observed the *Denial of Permit* to operate, of which we counted 11 instances. Most of these cases occurred in the UK, with the most prominent being the denial of the London transportation authority to grant a license to Uber in 2017 and 2018.

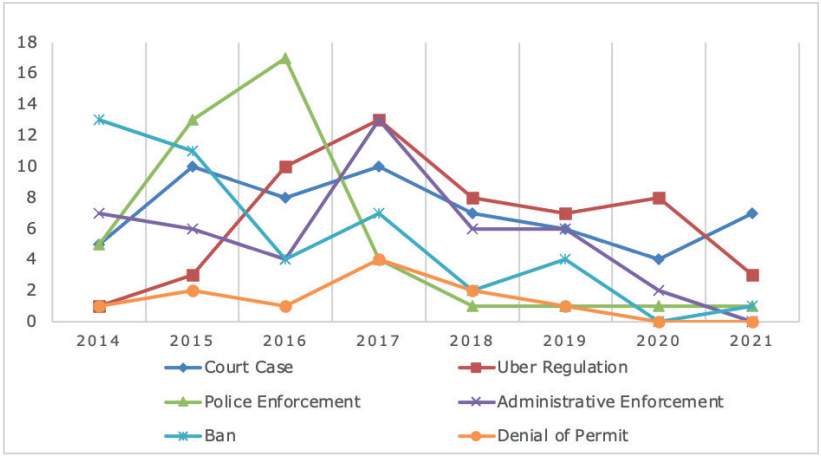
Turning to the temporal aspect of the reactions, Figure 4.2 juxtaposes the number of countries that experienced the introduction of Uber with the number of negative reactions per year. As highlighted by Figure 4.2, the platform went through a phase of aggressive expansion in 2014, when it entered 39 new countries. In the following years the platform continued its expansion, albeit at a much lower rate, up to 2018. The number of negative reactions closely follows Uber's trajectory of international expansion, with a short time-lag.

Figure 4.2: Number of Uber entries and negative reactions per year.



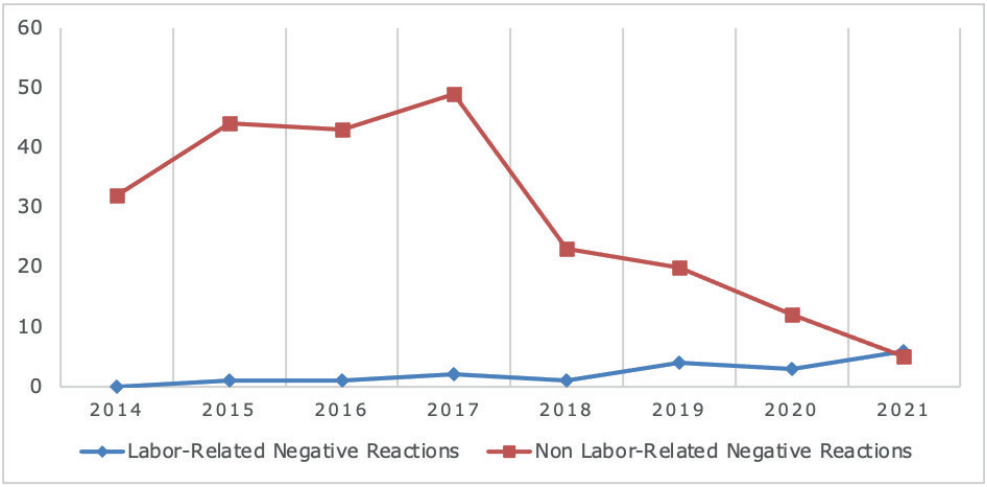
To further elaborate on the trajectories of different types of reactions, we plot the number of negative reactions per year for each category (Figure 4.3). Direct bans of Uber's operations and police enforcement stand out as the most common initial reactions to Uber's entry. Administrative enforcement and new regulations become more important in later years, signalling the processes which take place as formal institutions engage more closely with the platform.

Figure 4.3: Number of institutional reactions per year per type.



One of the main and often discussed points of institutional friction for Uber revolves around the issue of employment status of its drivers. To further explore this point, we separately counted the negative institutional reactions which contained a labour aspect (Figure 4.4). Interestingly, we find that reactions directly connected to the issue of employment status are relatively few during the whole observation period, yet slowly rise over time. This suggests that the primary concern for most stakeholders after Uber entered a country related to the illegality of the UberX service soliciting primarily unlicensed drivers. The more fundamental issue of whether drivers should be regarded as employees of Uber, providing them with minimum wage and social protection, became a substantial concern only in later years.

Figure 4.4: *Labour-related versus non-labour-related reactions per year.*



4.4.2. NegBin regression

Table 4.2 shows the descriptive statistics for the dependent and independent variables included in the NegBin regression model.

Table 4.2. *Descriptive statistics*

	N	Min.	Max.	Mean	Std. Dev.
Total number of negative institutional reactions	74	0	26	3.38	4.07
English official language	74	0	1	.28	
Competing platform	74	0	1	.46	
Time active	74	9	100	68.77	23.39
Level of corruption (lack of)	72	0	4	1.82	1.24
Functioning of the justice system	74	1.4	4	2.64	.75
Influence of economic stakeholders	74	0	3	1.52	.62
Public support for innovation	74	0	4	1.95	.98
Barriers to market entry (lack of)	74	0	4	1.66	.96
Competition regulation	72	0	4	2.32	.88
Trade union freedoms	70	0	4	2.88	1.00
Compliance with employment law	68	1	4	3.21	.75
Employment contract protection	74	1	4	2.55	.72
Effectiveness of social dialogue	74	0	4	2.13	1.08
Significance of informal work (lack of)	74	0	3.50	1.20	1.06

We created five models to test our hypotheses on the effect of institutions on the negative reactions to Uber. Table 4.3 presents the negative binomial regression coefficients for the effect of one unit increase of the variables measuring a country's institutional environment upon the number of negative institutional reactions towards Uber. Our first model includes only the control variables, which all show the expected signs. English as an official language and longer platform activity both have a positive effect on the number of institutional reactions but are statistically significant at most at the ten percent level. Also, the existence of a competing platform shows the expected negative sign without being statistically significant.

Table 4.3. NegBin regression model predicting total number of negative institutional reactions

Model	(1)	(2)	(3)	(4)	(5)
English	**0.481***	**0.487***	**0.409***	**0.544****	**0.425***
	(0.249)	(0.254)	(0.247)	(0.275)	(0.248)
Time active (log)	0.419	0.343	0.444	**0.564***	**0.422***
	(0.255)	(0.244)	(0.277)	(0.294)	(0.256)
Competing platform	−0.291	0.080	−0.155	−0.178	−0.089
	(0.238)	(0.258)	(0.259)	(0.279)	(0.265)
Level of corruption (lack of)		**−0.774****			
		(0.372)			
Functioning of the justice system		**1.981*****			
		(0.634)			
Influence of economic stakeholders		0.495			
		(0.441)			
Public support for innovation			**0.606***		
			(0.319)		
Barriers to market entry (lack of)			−0.406		
			(0.311)		
Competition regulation			0.637		
			(0.508)		
Trade union freedoms				−0.164	
				(0.630)	
Compliance with employment law				0.109	
				(0.590)	
Employment contract protection				−0.487	
				(0.494)	
Effectiveness of social dialogue				0.353	
				(0.441)	
Significance of informal work (lack of)					0.329
					(0.255)
Constant	−0.595	**−2.067***	−1.748	−1.101	−0.914
	(1.099)	(1.155)	(1.149)	(1.240)	(1.100)
Observations	74	72	72	65	74
Log Likelihood	−169.072	−160.189	−162.161	−150.116	−168.234
Maximum VIF	1.140	3.005	1.643	2.593	1.445

The subsequent four models include the institutional variables used to test our four hypotheses. Model 2 includes all the variables capturing institutions relevant to the rule of law. Amongst them, the functioning of the justice system presents the strongest and most significant effect, with an expected positive coefficient of +1.981 and a significance level at the one percent level. The corruption variable is statistically significant at the five percent level, but, unexpectedly, shows a negative coefficient of −0.774. This indicates that countries with lower levels of

corruption (i.e. stronger rule of law) display fewer negative reactions towards Uber. This runs counter to Hypothesis 1. Finally, the influence of economic stakeholders is not statistically significant. Overall, one variable support the hypothesis and one variable contradicts the hypothesis, showing inconsistent results on the relationship between the a strong rule of law and the volume of negative reactions to Uber.

In Model 3, we find that public support for innovation has a significant effect at the ten percent level, but in opposite direction than expected. This runs counter to our hypothesis on the effect of openness to innovation. Possibly, this could be explained by the composition of the indicator itself, which measures state-sponsored innovation rather than the public sentiment towards innovation. The other two variables do not have a significant effect on the dependent variable. Taken together, we reject the Hypothesis 2 on the relationship between openness to innovation and opposition to Uber.

In Model 4, we show the variables regarding labour protection, testing the hypothesis that more stringent labour protection leads to more negative institutional reactions. None of the four labour-related variables yields a statistically significant effect. Neither trade union freedom and the effectiveness of social dialogue, nor the employment contract protection and compliance with employment law are effective predictors of the volume of reaction to Uber. Hypothesis 3 is therefore rejected. This insignificant result can be linked to the descriptive analysis of institutional reactions (section 4.1), where we found that negative reactions related to the issue of employment status are relatively few during the whole observation period, indicating that the fundamental issue of whether drivers should be regarded as employees of Uber, became a substantial concern only recently. This may explain why we find that Uber did not face more negative reactions in countries with more stringent labour protections.

Model 5 tests the hypothesis that high levels of informal work might lead to less negative institutional reactions towards Uber. The variable regarding informal work yields a coefficient that is not significant. This suggests that, contrary to the findings of previous qualitative studies, Uber was not perceived as more legitimate in countries where informal labour (presumably including the taxi sector) is more prominent compared to countries where informal labour is less prominent. Accordingly, we reject Hypothesis 4.

We refrain from including all the variables in a single model in order to avoid degrees-of-freedom problem by (over)fitting too many independent variables into one model based on only a small number of cases. Given that the number of countries for which we could collect information on all variables is 65, the number of observations is simply too low to warrant the inclusion of all 14 variables simultaneously.

4.4.3 Time-to-event analysis

We complement our findings by performing a Cox regression. Our dependent variable in this case is the first instance of a negative institutional reaction in each country. Using a Cox regression, one can explain the time to the event of the first negative institutional reaction. We can use the same independent variables as in the Negative Binomial regression except for the variable "Time active". Here, we do not have to control anymore for how long Uber is active in a country as the time dimension is already taken into account as the dependent variable in a time-to-event analysis. And, as we now look at the time that it took until the first negative reaction by an institution occurred in each country, we can include a time-varying variable to capture institutional spillovers at the continent level ("Regional spillovers"). Table 4.4 shows the results.

Table 4.4 Cox regression model predicting time to first negative institutional reaction

Model	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**
English	0.814 (0.301)	0.645 (0.343)	0.637 (0.328)	0.860 (0.324)	0.712 (0.309)
Competing platform	1.229 (0.293)	1.734 (0.318)	1.442 (0.315)	1.390 (0.326)	1.431 (0.300)
Regional spillovers	1.022 (0.023)	1.020 (0.025)	1.001 (0.025)	0.999 (0.028)	1.014 (0.024)
Level of corruption (lack of)		0.949 (0.179)			
Functioning of the justice system		**2.064*** (0.312)			
Influence of economic stakeholders		1.045 (0.238)			
Public support for innovation			0.948 (0.140)		
Barriers to market entry (lack of)			1.197 (0.158)		
Competition regulation			1.448 (0.202)		
Trade union freedoms				1.348 (0.264)	
Compliance with employment law				0.966 (0.217)	
Employment contract protection				1.512 (0.298)	
Effectiveness of social dialogue				0.937 (0.211)	
Significance of informal work (lack of)					**1.278*** (0.133)
Observations	1,329	1,317	1,268	1,132	1,329
Events	64	62	63	56	64
Log Likelihood	-225.755	-211.307	-216.721	-186.467	-224.104

*Note: *p<0.1; **p<0.05; ***p<0.01*

Model 6 includes only the control variables. All three variables, English as an official language, a competing platform and regional spillovers are statistically insignificant. This remains the case in subsequent models.

In Model 7 we explore the effect of a robust rule of law regime on the probability of a negative reaction occurring. Our analysis indicates results similar to those of the negative binomial regression. For the variable functioning of the justice system, the model produces a hazard ratio of +2.064, indicating that a one unit increase in the functioning of the justice system roughly doubles the probability of a negative reaction occurring, partially confirming Hypothesis 1 similar to the positive effect of this variable in the NegBin regression. The remaining two variables, the level of corruption and the influence of economic stakeholders, do not have any statistically significant effect. Thus, while low levels of corruption have an unexpected negative effect in the NegBin regression analysis, such an inconsistent result is not found in the Cox regression.

Model 8 on the effect of pro-innovation institutions and Model 9 on labour market institutions show no significant effect. As in the NegBin regression analysis, the Cox regression analysis does not provide any evidence for hypotheses 2 and 3.

Finally, in Model 10, we find a significant effect of the informal sector, with Uber experiencing its first negative reaction earlier in countries without a large informal sector. This confirms Hypothesis 4 that gig platforms are more likely to face negative reactions in countries with lower degrees of labour informality.

4.5 Summary and conclusions

Our analysis of the institutional conditions that provoke negative reaction towards Uber suggests that stakeholders in countries with a well-functioning justice system – indicative of a strong rule of law – were most critical of Uber as evidenced by various types of institutional reactions. At the same time, none of the variables measuring openness to innovation, stringency of labour market institutions and the significance of informal work seem to have an effect on the volume of reactions. We observe similar results in the time-to-event analysis explaining the time it took for the first reaction to appear, where we find that a well-functioning justice system increases the probability of a first reaction to appear. What is more, we find evidence in the time-to-event analysis that Uber is more likely to face negative reactions in countries with lower degrees of labour informality, suggesting that Uber was less disruptive – and thus more welcome – in countries with a large informal sector.

Our findings on the institutional reactions after Uber's entry into countries worldwide are in line with the city-level study by Punt et al. (2021), who looked at the institutional conditions affecting the timing of Uber's entry in cities worldwide. They found that Uber entered later in cities located in countries with

a well-functioning justice system. Consistent with their findings, we find that after Uber's entry, Uber indeed faced more negative reactions in countries with well-functioning justice system. Our results, however, run counter the country-level study by Kim & Suh (2021), who found that Uber preferred to enter first in countries with a strong rule of law. After entry, however, Uber created ambiguity around the legality of its operations as its UberX app solicited unlicensed drivers. As our analysis suggests, this ambiguity created stronger institutional reactions in countries with a stronger rule of law, as to fit the platform within the existing institutional context.

We also want to highlight that pro-innovation institutions, supposedly supporting innovation and competition, did not support Uber. When entering a new market, Uber typically stressed the positive aspects of its innovative activities sectors, such as the quality of its service, their ease of use, low waiting times, and work opportunities for the unemployed (Thelen, 2018; Uzunca et al., 2018; Pelzer et al., 2019; Davis & Sinha, 2021). Apparently, this framing did not resonate much with stakeholders, reflected by the result that we did not find any differences in the number of negative institutional reactions in countries with and without pro-innovation institutions.

Our findings speak to Thelen's (2018) case study on the institutional reactions to Uber in Germany, Sweden and the United States. She found that the diversity of responses could be explained by the different regulatory issues that Uber triggered in each national context, which themselves gave rise to different coalitions of actors, uniting behind what they saw as a common threat. Building on these insights, our findings further extend our understanding of the negative effects that broader institutional configurations have on Uber's market entry.

The prevalence of legal cases versus other negative reactions indicates that Uber's activities raised questions of overall legality which had to be resolved in court. This observation further reinforces previous research on Uber's lack of moral legitimacy (Pelzer et al., 2019). Furthermore, negative institutional reactions follow a temporal pattern of enforcement where original reactions include bans and police actions (e.g. fines to drivers), while court cases and specific regulations follow once regulators have developed an understanding and subsequent response to the introduction of the platform. Despite the diversity of friction points and coalitions, opposing actors are more likely to confront the platform if they operate within the context of a well-functioning justice system. This suggests that a robust legal system increases the number of available legal means which can be mobilized against disruptive platforms. Furthermore, it may indicate a greater familiarity with those means and possible lower enforcement costs in using such means. Our study thus highlights the important role of the legal system in resistance against disruptive innovations.

I. Pelzer et al. (2019) applied the legitimacy concept to Uber's early operations in The Netherlands. They found that the platform company mainly focused on achieving pragmatic legitimacy by pointing to the popularity of the app among drivers and clients alike. Regarding cognitive legitimacy, the platform's media strategies emphasized the innovative nature of Uber's online matching service as well as the high quality of service. Finally, they found a lack of moral legitimacy as the platform's innovation evoked debates, in particular, regarding unfair competition between its unlicensed drivers and the incumbent licensed drivers. As a result, Uber was largely left out of the political process providing opportunities for incumbent national taxi lobby to maintain the *status quo*.

II. Puerto Rico was excluded because data on independent variables were lacking. The United States were also excluded due to an extreme number of cases, making it an outlier case deserving an analysis of its own. Taxi services in the US are regulated both at the local and state level This prompted multiple reactions at the local and state level, significantly more than in other countries where Uber expanded at a more gradual pace. As the entry mode effects the volume of reactions, we consider the US to be a special case.

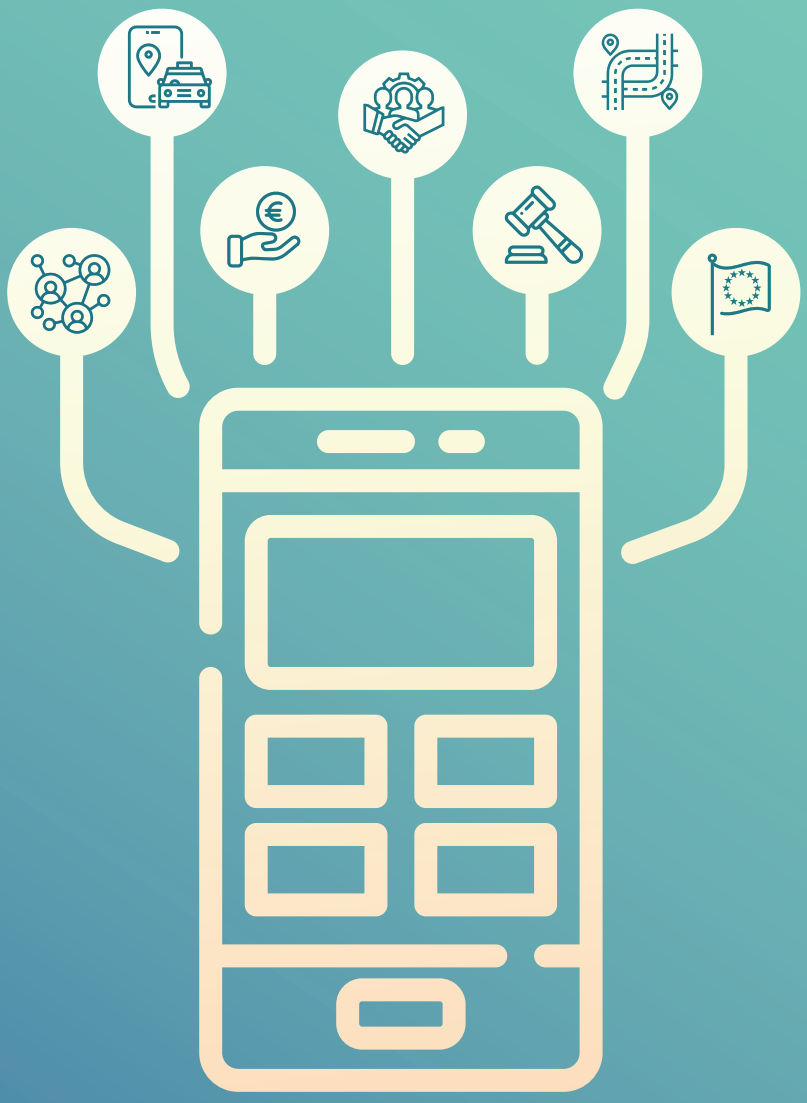
III. Our sample covers all countries belonging to the top 50 most populous countries. Hence the unknown countries that Uber may have entered after February 2017 are all smaller countries in terms of population.

IV. http://www.cepii.fr/institutions/EN/ipd.asp

V. https://projects.ncsu.edu/grad/handbook/docs/official_language_english.htm and https://www.cia.gov/the-world-factbook/field/languages/

VI. https://www.businessofapps.com/data/taxi-app-market/, https://www.marketingtutor.net/uber-competitors/, https://www.bstrategyinsights.com/top-10-uber- competitors-and-alternatives/, https://asia.nikkei.com/Business/Companies/Uber-s-Indonesia-exit-sets-off-driver-hunt-by-Grab-and-Go-Jek

VII. In order to estimate covariates associated with the risk of negative reaction, extended Cox models use exponential hazard functions that represent the risk that, if at time t a country has not experienced any reaction, this country will experience one at some stage later on. This means that the data is formatted in such a way that each country contributes a line for each time interval, allowing the time-dependent variables to change (Kleinbaum and Klein, 2012; Therneau, 2018). To measure the influence of covariates, the model uses the following equation: $h(t, \boldsymbol{X}(t)) = h_0(t) \exp\ [\sum_{i=1}^{p1} \beta_i X_i + \sum_{j=1}^{p2} \delta_j X_j(t)]$ where *ho(t)* is the baseline hazard function, *Xi* denotes the *i*th time-independent variable and *Xj(t)* denotes the *j*th time-dependent variable (Kleinbaum and Klein, 2012). All predictors at time t are denoted by bold ***X(t)***. The baseline hazard function estimates the risk for observations with 0 on all (time-dependent and -independent) covariates and is thus only dependent on time.



CHAPTER 5

Platform Adaptation to Regulation: The Case of Domestic Cleaning in Europe

Abstract

While online platforms were initially applauded for improving services in a range of sectors, they are currently being criticized for ignoring laws and regulations. We analyse the evolution of Helpling – the largest domestic cleaning platform company in Europe – by focusing on the ways that Helpling has adapted its platform to regulations in five national contexts (France, Germany, Ireland, the Netherlands and the United Kingdom). Using data on changing Terms and Conditions, we show that Helpling initially tried to introduce a single business model across Europe, but quickly started to adapt to national regulatory contexts. Informed by arguments on 'varieties of capitalism' in Europe, we base our case study on a comparison of the different national trajectories pursued by Helpling.

This chapter has been published as Koutsimpogiorgos, N., Frenken, K., & Herrmann, A. M. (2023). Platform adaptation to regulation: The case of domestic cleaning in Europe. Journal of Industrial Relations, 0(0). https://doi.org/10.1177/00221856221146833.

5.1 Introduction

Digitalization is a salient trend in the current economy transforming the ways we produce, trade and socialize in our society. One particular pervasive development is the introduction of digital platforms across different sectors. Platforms can be understood in a general sense as mediating social and economic interactions online, often by apps (Kenney and Zysman, 2016). Amongst the wide variety of online platforms, gig platforms stand out due to the particular regulatory questions they raise for governments and unions alike (ILO, 2021). We define the gig economy here as encompassing 'ex ante specified, paid tasks carried out by independent contractors mediated by online platforms' (Chapter 2, p.26). Such tasks may include taxi rides, food delivery, cleaning jobs, programming tasks, tutoring and babysitting – to name just the most prominent examples.

In contrast to traditional corporations, gig platforms do not employ their workforce, but rather connect gig workers as 'independent contractors' to clients. However, gig workers do not enjoy the freedom associated with independent contracting, because matching is performed by algorithms beyond their control, while worker performance is monitored by platform metrics and client reviews. Given the specific features of gig platforms, the main regulatory question in many countries revolves around the issue of proper employment classification of gig workers as independent contractors or employees (De Stefano, 2016). Specifically, in the European context, the employment status is often connected to access to social security and protection against precarious working conditions. Hence, the rise of the gig economy carries broader implications for society. As a response, governments have begun to take measures (particularly in the form of targeted legislation) in order to clarify the regulatory context of the gig economy. The proposal for a Directive on the rights of gig workers by the European Commission in December 2021 constitutes a recent and prominent example of these regulatory efforts, because the draft directive proposes to introduce a distinction between genuine freelancing work and bogus self-employment based on a set of criteria (European Commission, 2021).

Despite the significance of the various regulatory questions raised by the gig economy (De Stefano, 2016; Kaine and Josserand, 2019) and repeated calls for institutional ana- lysis by scholars (Frenken et al., 2020; Healy et al., 2017; Mair and Reischauer, 2017), little empirical research has been done on how platform companies actually deal with regulations over time. As the first gig platforms were launched over than a decade ago, it is timely to start analysing the long-term dynamics of adaptation by plat- forms to the institutional environments they operate in. Despite the economies of scale that they would enjoy by standardizing their operation across countries, we expect that platform companies adapt their platform to the specific national institutional contexts viz. specific 'Varieties of Capitalism' (Hassel and Sieker, 2022; Thelen, 2018). Accordingly, our study

focuses on how a multi-national platform company deals with different national institutional contexts.

More concretely, we ask the specific question of how gig platforms adapt to the regulatory risk of their gig workers being classified as employees. Empirically, we ground our arguments on analyses of Helpling, the leading platform for domestic cleaning services in Europe. Helpling is a particularly insightful case due to both the prevalence of undeclared labour in the domestic cleaning sector and the weak enforcement of regulations. Consequently, the platform may cause less disruption in this sector than their counterparts in the food delivery and taxi sector. This is particularly true as Helpling has, thus far, received little media or academic attention. More specifically, we study how Helpling has adapted its business model over an eight-year time span (2013–2020) in five national contexts (France, Germany, Ireland, the Netherlands and United Kingdom). To this end, we apply a longitudinal research design by collecting empirical data on the changes in the platform's Terms and Conditions (T&Cs). T&Cs constitute a set of rules that have to be accepted by its users (gig workers and clients), thereby creating a unique trilateral mode of governance (De Stefano, 2016). The systematic tracking of changes in Helpling's T&Cs, complemented by media analysis, allows us to depict the evolution of a single platform over time and across countries.

5.2 Platforms and institutions

Gig platforms define themselves as e-commerce companies delivering online intermediation services without bearing much responsibilities for gig workers, despite the uncertainties and difficulties that they experience in their work (Kaine and Josserand, 2019). Accordingly, gig platforms consider gig workers as independent contractors who themselves bear the risks and obligations associated with their own undertakings. A gig platform seeks to maximize the quality of the service offered in order to maximize its own revenues, while simultaneously seeking to maintain the status of an e-commerce platform and to avoid the classification of its gig workers as employees. These two goals may be conflicting, because assuring high-quality ser- vices generally requires a high degree of control over gig workers, which in itself can be interpreted as a relationship of subordination (employment). Assigning the status of independent contractors to gig workers, while exercising control over gig workers in practice, is indeed at the root of the social tensions and legal disputes in the gig economy (De Stefano, 2016; Healy et al., 2017; Kaine and Josserand, 2019; Prassl and Risak, 2015).

In institutional-theoretical terms, scholars have argued that the incompatibilities of gig work and existing labour institutions stem from the specific combination of corporation and market logics that gig platforms apply (Frenken et al., 2020; Meijerink et al., 2021). On the one hand, platforms allow gig workers to follow a market logic as they decide when to work, which gigs to accept

and how to execute a gig. On the other hand, plat- forms employ human resource management techniques following a corporation logic: platforms exercise control of the workforce by digital surveillance of their actions, by asking clients to rate worker performance, by using algorithmic ranking of search results, and by banning 'malfunctioning' workers from platforms. It is the combination of market and corporation logics that results in 'institutional complexity' (Greenwood et al., 2011) stemming from the institutional reactions of various stakeholders including competition authorities, labour inspection agencies, unions and gig workers themselves (Frenken et al., 2020; Meijerink et al., 2021). Gig platforms, in turn, respond by adapting to this complex institutional environment in different ways, including lobbying, com- promise or compliance (Ilsøe and Larsen, 2021).

National labour regulations as well as sectoral regulations often differ across countries. This may hamper the quick internationalization process through which platforms often seek to secure market share early on, as they may not be able to standardize their software and legal models across countries. In Europe, for example, there is a variety of labour and sectoral institutions leading to different points of institutional friction with gig platforms (Hassel and Sieker, 2022; Thelen, 2018). More specifically, most European labour markets exhibit a rather high degree of employment protection, thereby challenging the application of the 'independent-contractor' model of platform workers.

Empirical studies of gig platforms have highlighted these country differences in institutional frictions and regulatory responses. For example, stakeholders in Germany and Sweden responded quite differently to the entry of Uber, with different emerging coalitions and key regulatory concerns, eventually leading to different institutional outcomes (Thelen, 2018). While debates in Germany centred around the question of platform legality that led to Uber's ban, concerns about tax and social security contributions were central in the Swedish case, leading Uber to take on the status of a taxi company. Later, a ruling of the European Court classified Uber as a transportation provider, thereby paving the way for Uber's regulation in other EU countries as well (Aloisi, 2022). In the United States, by contrast, regulators tended to support and facilitate online taxi platforms (Adler, 2021; Tzur, 2019). Here, a specific, and favourable, regulation was introduced for gig platforms in the taxi sector outside the pre-existing regulations for traditional taxi companies.

Empirical work has further shown that gig platforms also pursue quite different strategies to adapt to their regulatory environment. Particularly in contexts where incumbent firms enjoy little legitimacy, gig platforms can leverage their popularity with users to quickly gain legitimacy with politicians and regulators through lobby and campaigns, and subsequently shape regulations in their favour (Uzunca et al., 2018). In other con- texts, platforms may reach a comprise by balancing the interest of multiple actors through a new agreement, as it was the case with the introduction of the 'quasi-employee' status for food delivery riders in Korea (Lee, 2022) and with a company agreement negotiated by

the Danish cleaning platform Hilfr and trade union 3F (Ilsøe and Larsen, 2021). And in yet other contexts, platforms fail to shape regulations in their favour: instead, they are forced to comply with the existing legal framework by adapting their business model to reduce institutional frictions – like in the case of Uber in the Netherlands (Pelzer et al., 2019) and the platform for temp work Chabber in Denmark (Ilsøe and Larsen, 2021). Compliance can nevertheless result in a sustained competitive advantage for platforms, as it resolves uncertainty over the legality of its operations and fosters more engagement between workers and clients, and with the general public (Ilsøe et al., 2020).

Apart from legal challenges, platforms may face opposition from trade unions, which see their independent-contractor model as a direct threat to the welfare of gig workers and the union's role in protecting the interests of employees. Taxi unions were among the first to raise concerns and take action when the swift worldwide expansion of Uber resulted into a direct hit on the livelihood of drivers. As the platform model expanded to more sectors such as delivery and domestic cleaning, some trade unions opened their ranks to gig workers and pressured platforms to adapt to the existing industrial relations model. In Denmark and Sweden, for example, trade unions used a mix of intervention methods, such as negative media campaigns and litigation in the attempt to push platforms into the existing collective bargaining frameworks (Ilsøe and Söderqvist, 2022). In Germany, IG Metall opened its membership to gig workers in 2016 and sponsored the creation of a Code of Conduct for online platforms (Vandaele, 2018). And in Italy, unions experimented with various forms of collaboration with other actors, including employer organizations and self-organized groups of riders (Gasparri and Tassinari, 2020).

From a theoretical point of view, the varying institutional responses to platforms in different national contexts can be related to the underlying institutional differences across countries. Such differences have been conceptualized before by the 'Varieties of Capitalism' literature (Hall and Soskice, 2001). In the context of our study focusing on Western Europe, two main ideal types have been identified. First, liberal market economies (LMEs) are characterized by weak labour market regulation, low levels of social

security support, and little involvement of unions in the social dialogue (e.g. Ireland, the United Kingdom). Second, coordinated market economies (CMEs) are characterized by moderate state regulation, high levels of social security support, and a systematic involvement of strong unions in the social dialogue across all sectors (e.g. Germany, the Netherlands). Some countries, however, do not fit neatly into either of these categories. France, for example, is a country that still exhibits strong state regulation, high levels of social security, and strong involvement of the unions in the social dialogue within selected sectors. Therefore, France is typically regarded as a third variety of 'state-enhanced' capitalism in the varieties-of-capitalism literature (Schmidt, 2003).

Given these varieties of capitalism across Europe, one may expect different ways and degrees of adaptation by platforms to national institutions as they expand their operations across borders (Hassel and Sieker, 2022). Given the treatment of gig workers by platforms as independent contractors, platforms may see little need for adaptations in LMEs where labour market flexibility is institutionally supported by flexible contracts and universal welfare. By contrast, platforms may have more reasons to adapt their business model in CMEs countries as well as in state-interventionist countries because of their higher levels of labour protection and social security. That said, it should be noted that the literature on Varieties-of-Capitalism originates from the study of institutions in manufacturing sectors and how such institutions affect the competitive advantage in exports markets. Hence, the arguments based on manufacturing industries may not simply be carried over to the service sectors in which gig platforms operate, which include taxi, food delivery, domestic cleaning, baby sitting and odd jobs. In these service sectors, competition is local and unionization rates tend to be low. What is more, there tends to be a high prevalence of undeclared labour and weak enforcement of economy-wide and sectoral regulations (Thelen, 2018; Walker, 2020). Thus, in the empirical context of the gig economy, the Varieties-of-Capitalism framework can serve as a heuristic device rather than a predictive theory about the exact nature of institutional frictions and the platforms' adaptation strategies. Indeed, we may observe patterns that are more complex than simple distinction between the ideal types of 'liberal' versus 'coordinated' versus 'state-enhanced' market economies.

5.3 Freedom versus control

To investigate how gig platforms reacted to the regulatory risk of their gig workers being classified as employees, we need to delve deeper into the legal aspects defining an employment relation. The existence of a longstanding subordination relationship between two individuals within the context of paid work is a necessary and sufficient condition for the establishment of an employment relationship (De Stefano, 2016). When asked to examine whether, or not, such a relationship exists, regulators and courts usually test the applicability of several (employment) conditions. Here, the T&Cs of a platform provide key information to this end (De Stefano, 2016), which we therefore use as the core empirical basis of our analyses below. Importantly, a platform's T&Cs are non-negotiable and provide the legal framework in which transactions take place between the three parties involved (i.e. gig workers, the platform and clients). Accordingly, it is through the T&Cs, which both gig workers and clients need to accept in order to get access to a platform's app, that a platform codifies the trilateral agreements between itself, gig workers and gig requesters.

Several scholars have identified conditions that may influence a regulator's classification of the labour relationship between the platform and its gig workers

(De Stefano, 2016; De Stefano and Aloisi, 2018; Meijerink and Keegan, 2019; Weber et al., 2021). Importantly, a list of conditions cannot be strictly derived from current labour law, because the latter could not anticipate the particular configuration of freedom and control in gig work: gig workers are free to decide when to work, which gigs to accept and how to execute gigs, but are also subject to digital surveillance, client rating, algorithmic matching and even the risk of being banned from a platform. Hence, we distil the five conditions on which we focus in our analyses both from labour law jurisprudence on the classification of gig workers, and from the empirical realities of control over workers as examined in human resource studies. Each of these conditions may vary between the countries in which a platform operates, and the platform can adapt its T&Cs for each criterion over time. These five criteria are as follows.

(1) The classification of workers as independent contractors

As explained, gig platforms tend to regard gig workers as independent contractors, some- times called 'freelancers' or 'partners', rather than as their employees (De Stefano, 2016). This practice does not only reduce potential legal liabilities for platforms, but also all obligations deriving from the application of employment law. As De Stefano and Aloisi (2018: 17) point out: 'In the European legal system, this private standard-setting may also affect the assessment of the employment status of workers'. The status of an independent contractor is established in the T&Cs by the sheer fact that a gig worker has to accept this status before getting access to the platform, in a 'take it or leave it' arrangement. The ambiguous wording used to define the relationship between a platform and its gig workers is chosen with the intention to avoid legal challenges (De Stefano and Aloisi, 2018).

(2) Limiting the outsourcing of work

An important indicator defining the nature of an employment relationship is the ability of the independent contractor to outsource work to third parties (De Stefano and Aloisi, 2018). The prohibition of outsourcing points to a relationship of authority between the platform and the gig worker, because genuine independent contracting is associated with the entrepreneurial freedom to outsource the task, for which one is hired, to a third person who then performs it in one's place. Since independent contractors often have a status similar to that of a legal entity rather than an employee, the ability to delegate a task within the context of their work is deemed essential in the course of executing services. Platforms may however want to make sure that a task allocated to a particular gig worker account is also executed by the person in question. This helps platforms to control quality and avoid that their clients have to deal with someone else than the gig worker whom they originally hired via the platform. To this end, the T&Cs of platforms may

prohibit and sanction the unauthorized transfer of tasks from one gig worker to another. Importantly, this practice ' (...) may be used to prove the lack of autonomy of the contractual relationship' (De Stefano and Aloisi, 2018: 20), thus increasing the risk for the platform that their relation with the gig worker is classified as an employee–employer relationship.

(3) Pre-screening

Performing interviews and requesting (work or educational) credentials is a quintessential part of every hiring process. Similar to traditional employers or temp agencies, platforms can also use pre-screening before allowing gig workers to offer their services (De Stefano and Aloisi, 2018). Pre-screening helps platforms to assess the service quality that can be expected, as well as the reliability and trustworthiness of workers (Meijerink and Keegan, 2019). However, platforms maintaining this practice increase the chances of being classified as an employer in the case of a legal dispute. On the other hand, platforms may prefer to use and include a pre-screening process in the T&Cs in order to codify the on-boarding process of gig workers upon platform registration.

(4) Monopoly of transaction

Platforms act as intermediaries, facilitating transactions between gig workers and clients. They reduce the transaction costs involved in the matching and contracting between these parties. However, once a specific gig worker has worked for a particular client, the two parties may decide to continue their relationship outside the platform, saving commission fees by contracting directly, thus undermining the platform's intermediary role and its revenues stemming from commissions via transaction (Meijerink and Keegan, 2019). While such repeated transactions are hard to realize for gig workers and clients in case the job requires a real-time service (ride-hailing, food delivery, etc.), they are much easier to realize for tasks that are planned well in advance (such as cleaning or tutoring) (Weber et al., 2021). This phenomenon of 'disintermediation' is also more likely if each platform transaction entails an extra intermediation cost on either side. In this case, both clients and gig workers, after their first successful transaction, have an incentive to continue their collaboration outside a platform. To maintain their business, a platform may sanction direct transactions with previous clients, providing another example of how platforms limit the autonomy of gig workers (De Stefano and Aloisi, 2018). This practice therefore increases the risk for the platform to be classified as an employer.

(5) Price setting

The extent to which gig workers are able to set their own rates, rather than needing to accept the rate set by a platform, is an additional indicator of independent contracting (De Stefano, 2016). The freedom to set prices is indeed a key entrepreneurial freedom. Consequently, the lack of control over price setting is a strong indicator of an employment relationship between a platform and its gig workers, because the latter cannot exercise their entrepreneurial freedom to set prices on their own (De Stefano and Aloisi, 2018). Nevertheless, platforms may set prices, sometimes even 'dynamically', because control over prices is a way to calibrate supply and demand. What is more, fixed prices give clarity and certainty to clients. Hence, price setting may be part of a platform's T&Cs.

These five criteria have all been reiterated in different court cases over gig worker classification. For example, in the case of Uber vs Aslam in the United Kingdom, the Supreme Court critically assessed Uber's exclusive right to set the price for the service and the restrictions set by the platform on the communication between driver and client with the aim of preventing the establishment of a long-term relationship between the two. Both aspects were argued to constitute factors of an employment relationship (Supreme Court UK, 2021). Other courts in Italy, Spain, France and the Netherlands have reached similar conclusions and classified both Uber drivers and delivery workers as employees (Aloisi, 2022). Building on this jurisprudence, the recent proposal of an EU Directive on the rights of Platform Workers also covers some of these criteria. In particular, it recognizes the control over pricing, the restrictions to subcontracting and the restrictions on workers' ability to build a client base beyond the platform as indicators of control which verifies the presumption of an employment relationship (European Commission, 2021).

5. 4 Methods and materials

5.4.1 Helpling

To study how gig platforms adjust to national regulatory contexts, we analyse the evolution of the T&Cs of Helpling, which is the main online platform in the European domestic cleaning sector. Helpling also offers a particularly insightful case as domestic cleaning jobs are discrete tasks, generally performed by a single cleaner. In many countries, domestic cleaners are operating in the ill-defined institutional space between formality and informality (Flanagan, 2019; Hellgren, 2015). Becoming a cleaner does neither require any formal certification nor training, and is often done by female and migrant workers. Nevertheless, domestic cleaning is subject to national labour law as well as sec- toral regulations, which vary across European countries.

Helpling began its operations in spring 2014 in Germany (O'Brien, 2014). The idea to create a platform for domestic cleaning services was copied from the Silicon-Valley start-up Homejoy, founded in 2010, which expanded to Canada in 2012 and to the United Kingdom, France and Germany in 2014, but ceased all operations in 2015. Homejoy's business model, operating solely with independent contractors, acted as a 'blueprint' for the development of Helpling's business model (DPA, 2014). Endowed with solid financial backing from its inception, Helpling managed to expand quickly

across Europe and beyond (e.g. Brazil, Australia). Not all of those endeavours were similarly successful, witnessing the retreat from several markets (e.g. Austria, Brazil, Sweden). Currently, Helpling is active in 11 countries worldwide, mostly within Europe (www.helpling.com, visited 15 April 2022).

As for most gig platforms (De Stefano, 2016), Helpling establishes a triangular relationship between itself, private households in search for cleaning help and prospective cleaners. It considers itself to act solely as a mediator between clients and cleaners, without participating in the provision of the cleaning services. Clients and cleaners have to accept the 'Terms and Conditions' (in some cases referred to as the Terms of Use) when subscribing to the platform. A second contract, usually referred to as the 'Cleaning Agreement', is concluded between the user and cleaner. Payment is completed via the platform and includes a commission (in the form of a percentage of the price paid to the cleaner) to remunerate the platform's service.

5.4.2 Data collection

We use the platform's T&Cs, and their changes over time, as our main data source. We limit our analyses to all European countries in which Helpling is currently active (with the exception of Italy, for which the data available was extremely limited). Our country sample thus includes the cases of France, Germany, Ireland, the Netherlands and the United Kingdom. These cases were purposefully chosen following the original theory on Variety of Capitalisms which views the United Kingdom and Ireland as two typical LMEs, Germany and the Netherlands as typical CMEs (Hall and Soskice, 2001), and France as an example of a state-enhanced economy (Schmidt, 2003).

In order to access all previous versions of Helpling's T&Cs for each country, we used the Internet Archive (the so-called Wayback Machine), the most prominent and oldest repository of internet content. The Wayback Machine captures snapshots of websites and stores them in its database. The availability of snapshots depends on the number of visitors that a webpage receives within a given time-span: the higher the traffic, the higher the chances that a specific webpage (or parts thereof), are stored by the Wayback Machine. Given that visitor traffic on webpages is likely to increase after a webpage has been changed, one can assume that new versions

of Helpling's T&Cs have been saved after the page had been modified. By accessing that part of the webpage which contains the T&Cs, and copy-pasting the URL into the Wayback Machine, we could locate previous T&C versions.

For each of the five countries under study, we analysed the content of all available T&C versions. Overall, we managed to retrieve 22 documents for the five country cases. Table 5.1 provides an overview. In all cases, the documents have a timestamp, marking the date when they became valid.

Starting from the earliest version for each country, we compared the contents of the different T&C versions over time and identified changes in both the contents and structure of the T&C text. We analysed each version of Helpling's T&Cs, locating those sections which could be more closely matched with the five aforementioned dimensions that are associated with the control of Helpling over its workers and the resulting risk of being classified as an employer. To do so, we first operationalized each of the five dimensions separately, as described in Table 5.2. Finally, we assigned a value for each dimension and country, with the value 1 if its presence was detected, and 0 in the case it was absent.

5.4.3 Media analysis

In order to triangulate and further interpret the findings emerging from the analysis of Helpling's T&Cs, in particular Helpling's adjustments of T&Cs in different country con- texts, we analysed media articles about Helpling in the five countries under investigation (indicated by 'art.' below). To arrive at these articles, we used Lexis Nexis, which con- tains a broad selection of all major European newspapers, as well as a significant number of online web sources. For each country, we selected all articles from the Lexis Nexis database referring to Helpling.1 The time period covered went from the moment in which Helpling started to operate in the respective country until October 2020.

Table 5.1. *Overview of the Terms and Conditions retrieved via the Wayback Machine.*

Version	1	2	3	4	5	6	7	8
UK	06.13	09.15	09.16	08.19	-	-	-	-
Ireland	06.13	09.15	08.19	-	-	-	-	-
Germany	03.14	06.14	01.15	02.16	04.16	11.16	05.19	08.19
The Netherlands	03.14	09.14	04.16	10.16	03.17	08.19	03.20	-
France	04.17	08.19	-	-	-	-	-	-

Note: Cells contain the time-stamped date (month.year) for each new version of the Terms and Conditions in each country. The maximum number is 8 (Germany) and minimum is 2 (France). Version 1–3 for the UK and 1&2 for Ireland refer to Hassle.

Table 5.2: Operationalisation of Variables (included in Helpling's Terms and Conditions)

Variable	Operationalization	Assigned Value
a) Classification of workers as independent contractors	Helpling explicitly regards its cleaners as independent contractors or private companies.	If yes: 1 If no: 0
b) Limiting the outsourcing of work	Helpling sanctions outsourcing, i.e., the transfer of tasks from one gig worker to another.	If yes: 1 If no: 0
c) Pre-screening	Helpling codifies aspects of pre-screening as part of its on-boarding process when accepting new cleaners to the platform.	If yes: 1 If no: 0
d) Monopoly of transaction	Helpling sanctions cleaners who transact outside the platform with clients directly with whom they transacted via the platform before.	If yes: 1 If no: 0
e) Price setting	Helpling sets the prices or whether cleaners are free to set their own prices.	If Helpling sets prices: 1 If cleaners set prices: 0

For all five countries together, the search returned over 2000 articles, which we then reviewed in order to identify those where Helpling was the main topic. We furthermore excluded news items that mentioned Helpling without providing further information, or that merely repeated a previous article. We then performed a second review in order to identify those news items that provided insights into the five regulatory dimensions we identified before. This sampling process resulted into a final corpus of 68 articles: 35 for Germany, 21 for the Netherlands, 4 for France, 4 for the United Kingdom and 4 for Ireland. Clearly, Helpling attracted a lot of media attention in Germany and the Netherlands and little in the other countries (France, Ireland, United Kingdom). This can be understood as a first indication of the different evolutionary trajectories of Helpling in these countries, with the process in Germany and the Netherlands being particularly rich of conflicts (more on this below).

5.5 Results

Table 5.3 lists the features of Helpling's T&Cs for each country as well as the changes that were introduced until October 2020. For each modification, the T&C is indicated below. In two instances, a mutation was reversed at a later stage, so multiple T&Cs are listed.

Two clear patterns emerge from comparing these T&C dimensions one by one. First, Helpling did not change the classification as independent contractors into employees in any of the countries. This indicates Helpling's commitment to the original gig-platform model, positioning itself as a digital intermediary supporting gig workers and clients to connect and transact.

Second, Helping abandoned its initial involvement in price setting in all of the countries under investigation. It did so, first, in the Netherlands and, later

on, in the four other countries. This change can be understood as another sign that Helpling was aiming to uphold the status of its gig workers as independent contractor across all countries. Had Helpling upheld price setting, it would have run the risk of being classified as an employer and its workers as employees, because setting prices deprives independent con- tractors of one of their basic freedoms (Frenken et al., 2020).

Table 5.3. *Changes in T&C dimensions over time.*

Country	UK	Ireland	Germany	The Netherlands	France
Starting date	06.2013	06.2014	03.2014	03.2014	06.2014
a) Classification as independent contractors	1	1	1	1	1
b) Limiting the	0	0	0→1	1→0	0
c) Pre-screening	1	1	1→0	1→0	1→0
d) Monopoly of transaction	1	1	0→1→0	1→0→1	1→0
e) Price setting	1→0	1→0	1→0	1→0	1→0
T&C version with change observed	e) Version 4	e) Version 3	b) Version 4 c) Version 4 d) Versions 3-4 e) Versions 7	b) Version 3 c) Version 3 d) Version 3-6 e) Version 6	c) Version 2 d) Version 2 e) Version 6

Regarding the other three dimensions, the patterns across countries are more mixed. Limiting the outsourcing of work to other cleaners is most often not part of Helpling's T&Cs. Only in the Netherlands, it was included in the first version of T&Cs but abandoned at a later stage, consistent with the status of cleaners as independent contractors. In Germany, by contrast, this prohibition was introduced at a later stage.

Regarding the pre-screening process, it becomes evident that all national platforms engaged in this practice at the start of their operations in the respective country, consistent with Helpling's aim to maximize quality control. Over time, however, Helpling removed any mentioning of this practice from its T&Cs in three (France, Germany and the Netherlands) out of five countries, rendering the on-boarding procedure of gig workers more consistent with the status of independent contractors.

Finally, regarding the monopoly of transaction, this feature was upheld in the T&Cs of Ireland and the United Kingdom. In Continental Europe, by contrast, a more complex pattern emerged: France eventually abandoned the sanctioning of external transactions, while the Netherlands abandoned and later on restored it, whereas Germany pursued the opposite trajectory of introducing, then abandoning it.

The results shown in Table 5.3 furthermore indicate that Helpling pursued different trajectories in different national contexts. While the T&Cs in United Kingdom and Ireland changed very little and followed the exact same parallel paths, France, Germany and the Netherlands evolved in quite different directions during the period considered. In order to better understand this divergence, we take a closer look at the history of Helpling for each country individually (studying United Kingdom and Ireland together as the platform here pursued the same trajectory). We particularly focus on how Helpling identified business challenges and instances of institutional friction in relation to adaptations of their T&Cs.

United Kingdom and Ireland

Helpling entered the United Kingdom and Irish market by taking over the platform Hassle in July 2015, which was established in the United Kingdom in October 2013 and expanded in July 2014 to Ireland (IR4). At the time, the founder of Hassle, Alex Deplege, saw an opportunity for a large-scale service provider in a market dominated by word-of-mouth or very small cleaning agencies, by having cleaners provide a more customized cleaning service with higher quality (art. UK1, art. UK3). Furthermore, the founder claimed that the platform could have a broader positive societal impact by providing an opportunity for long-term unemployed to find jobs (art. UK1). The prices were fixed at 10 pounds per hour for London and 12 Euro per hour for Dublin, with the plat- form charging a 10% commission. And, despite the fact that they refer to two different countries, the T&C documents, and subsequently the platform's business model, are identical, up to the point where the documents in our dataset have been modified on the same dates and feature a highly similar content.

Two of the early problems hampering interactions on the Hassle platform were the lack of trust between clients and cleaners, as well as the over-supply of labour, leading cleaners to underbid each other, eventually dis-incentivizing them from continuing to work via the platform. In order to resolve these issues, Hassle introduced a hiring process which included an interview and background checks; and the platform set a fixed price guaranteeing a minimum income for the cleaners (UK1). Throughout the whole period that we study, Helpling continued to mention the intensive screening process – including interviews, proof of identity and the request of references – with the aim to 'ensure suitability and quality of the service providers' (see Versions 1-4). Helpling also prohibited cleaners to arrange gigs outside the context of the platform, and up to six months after they had stopped using the platform. This prohibition became even stricter in Version 4, when Helpling introduced a penalty of 500 pounds for that practice.

Neither the introduction of Hassle.com nor that of Helpling received particular media coverage. In sharp contrast to other countries, where Helpling was extensively discussed in the media (e.g. in Germany and the Netherlands),

we find very few media reports on Helpling in the United Kingdom and Ireland. Characteristically, only one article was found that refers to the negative social consequences of Helpling's activities. The lack of media coverage is congruent with the stability of the main T&C features in the United Kingdom and Ireland, as institutional opposition was largely absent and unions showed little engagement with this particular platform. The only, and rather late, change made in 2019 allowed cleaners to set their own prices, which was introduced only after this change had already put into effect in France, Germany and the Netherlands. In short, operations of Helpling in the United Kingdom and Ireland were very stable in the course of the platform's history, suggesting little regulatory pressure towards the recognition of gig workers as employees within the context the liberal labour markets of the United Kingdom and Ireland.

Germany

Helpling entered the German market in April 2014 and it initially operated only in four major cities, namely Berlin, Hamburg, Munich and Cologne (art. G1). It set a fixed price of 12.90 Euro per hour, out of which the platform received a 20% commission for its intermediation services. Any further costs like insurance or social security were paid separately by the cleaner (art. G5). Despite the lack of an official employment relationship between the platform and the cleaners, access to the platform was restricted to a selected few. Prospective cleaners had to go through a two-stage application process which certified that they could work legally and efficiently. In the first stage, all prospective cleaners were asked to provide a valid business license (Gewerbeschein), proof of identity, a CV, and a police clearance certificate. Subsequently, they had to go through an interview followed by a 'trial cleaning', as a demonstration of their work skills (art. G3). About half of the prospective cleaners were screened-out during this phase, resulting in a smaller albeit competent pool of available cleaners (art. G2).

From the very beginning in 2014, Helpling presented itself as the alternative to informal labour which dominates the German domestic cleaning market. It was calculated that about 88% of all domestic cleaning work is unregistered (art. G33), resulting in 2.9 million cases of illegal work. Previous attempts by the German state to reduce that number, including a 20% tax return on household services and options for deregulated employment as a cleaner, were not successful. Helpling marketed itself as the best option for households to legally employ a reliable cleaner without having to go through the bureaucratic process of registering the cleaner oneself (G4).

In the first months of 2015, Helpling had experienced a rapid growth in activities, capital and size. According to its CEO, the platform was now active in 150 cities in 8 countries around the world and growing, while it made plans for hiring 100 more employees in addition to the 200 already employed (art. G12,

art. G13). This was made possible through a series of successful funding rounds, which provided about 46.5 million Euro to the company (art. G12, art. G14). A large part of this money was invested in marketing campaigns, which, somewhat ironically, increased the visibility of their competitor's gig platforms as well (art. G12). In the meantime, four cleaners had sued the domestic cleaning platform Homejoy in the United States, contributing to the demise of the entire company worldwide, including in Germany. In mid-2015, with the main competitor off the market, Helpling consolidated its market leadership (art. G20). It is reasonable to assume that Homejoy's labour dispute made Helpling more sensitive towards the various issues related to the status of cleaners, even if this lawsuit had concerned a competitor and in the legal context of the United States. Furthermore, to explain its failure, Homejoy also emphasized the difficulty of maintaining the quality standards of its cleaners (Farr, 2015). The emphasis on quality confirms the early strategy of Helpling to strive for maximum control over its cleaners.

By the end of 2015, the rapid growth of Helpling turned into swift retreat. Despite the earlier massive influx of capital, the company was forced to leave some of the countries in Europe and the Americas, where it had previously expanded, and to fire a fifth of its personnel (art. G21). The re-focusing onto Germany led the platform to be more attentive to the German situation. Prices remained fixed but increased in some countries to almost 17 Euro (13.5 Euro after the commission) in order to better reflect the increased living costs in cities and to make the platform more attractive for cleaners (art. G23). Furthermore, Helpling (unsuccessfully) advocated the relaxation of those rules which had blocked asylum seekers from taking up employment until their application had been approved (art. G23). As a further response to those growing challenges, the platform instigated a number of changes of its business model, which can be witnessed in the fourth T&C version of February 2016. Critical aspects were altered in the attempt to make the hiring process more flexible, while maintaining a high quality of services.

The first change was the abolition of the two-stage application process for prospective cleaners as any reference to this was removed from the T&Cs. While it was still necessary for cleaners to provide some basic proof of identity, the rigorous testing and high-level screening process was eliminated. Given Helpling's financial challenges at the time, this change may have been a cost-reduction strategy, 'outsourcing' quality control to clients' ratings. At the same time, there also was a clear move towards giving extra leeway to the gig workers in order to define their role in the transaction. Helpling's T&C statement is particularly noteworthy to this end, saying that '(s)ervice providers are free to have the work performed by their own employees or subcontractors' (Version 3). And a few months later, Helpling attempted to claim the monopoly of transaction by introducing the following statement into the T&Cs: 'Should Helpling become aware that a user and a service provider instead of a cleaning contract for independent services establishes an employment contract or the fulfilment of

an order actually per- forms like an employment relationship, this constitutes a reason for extraordinary termination of the user contract without notice.' (Version 3). Similar to previous cases, this phrase completely disappeared from the text in 2016. Taken together, all these measures reflect attempts by Helpling to improve their performance through a combination of cutting costs, expanding its worker base and getting a tighter grip on their behaviours.

Interestingly, these changes were initially met with little resistance from government authorities, possibly due to the unregulated nature of domestic cleaning and the failure of past political attempts to improve cleaners' work. What is more, around that time (in 2014), the German government was even contemplating the creation of its own state- sponsored cleaning platform with the aim of decreasing undeclared labour, an idea that was later silently abandoned as more and more gig platforms became active in Germany. As the German government was already thinking along the lines of a platform solution for the social issue of informal labour, Helping started calling for a market-based response, conveniently placing itself at the forefront. Against this background, the German government did not voice any strong opposition, despite the legal ambiguities inherent to Helpling's T&Cs.

On the other hand, trade unions and the cleaning industry were sceptical about the gig economy and its related dangers for workers' rights resulting from the digitalization of work, with Helpling often used as a reference. For example, IG BAU – the trade union responsible for (amongst others) cleaning workers – referred to Helpling when discussing the negative effect of digitalization on the established employment relations (art. G8). Similarly, the industry association of cleaning companies in Germany criticized the platform for offering low wages, accusing Helpling of replacing undeclared work with pseudo self- employment (art. G9). In 2018, the head of the major union confederation DGB referred to Helpling and Uber when he called for social security contributions and collective agreements in order to avoid the creation of a digital precariat (art. G28). Nevertheless, any opposition from the social partners remained limited to nothing more than rhetorical arguments – without any further political or legal action taken against the platform.

Overall, Helpling thus encountered little resistance during its introduction and expansion in Germany. Against the backdrop of a mostly unregulated domestic cleaning market, the platform managed to successfully market itself as a radical solution to a long- standing problem. At the same time, the social partners adopted a more systemic and critical approach towards the gig economy, viewing it within the broader context of digitalization and liberalization of the labour market. As Helpling's operations were limited to the domestic cleaning market, which is already beyond the direct control of the social partners, the latter did not mobilize any significant opposition.

The Netherlands

Helpling entered the Dutch market in June 2014, against a backdrop of an informal domestic cleaning sector, high unemployment and tightening budgets for care services in the local administration (art. NL2). Shortly after its introduction, the platform expressed its intention to expand to the broader cleaning service sector, for example, the home care sector (art. NL2). FNV, the largest Dutch trade union confederation, was quick to raise concerns about the comparatively low salaries of gig workers and their restricted access to basic labour rights (art. NL1). Eventually, the platform was limited to domestic cleaning services.

Upon becoming active in the Netherlands, Helpling did not find an unregulated legal context. The main characteristic of the Dutch market for domestic cleaning services was the incorporation of the 'Regeling Dienstverlening aan Huis' (Regulations for Domestic Services), which was created with the aim of providing certain labour rights to domestic workers – similar to the third category of 'worker' in the United Kingdom – who would otherwise remain highly precarious. These regulations only apply in the case of individuals who work less than four days per week, and they include specific provisions regarding salary, holidays, holiday allowance, extra costs and sick pay.3 Despite the existence of such a tailor-made regulatory instrument since 2007, its implementation was not deemed successful. Most cleaners and clients were unaware of this regulation and cleaners rarely declared their income to the tax authorities (Frenken et al., 2017). This failure, in combination with the lack of viable policy alternatives, such as the non-incorporation of the ILO Convention No. 189 and the lack of a government-supported subsidy scheme to hire formal cleaners, gave Helpling the opportunity to market itself as a legitimate business to the Dutch government – that is, as an innovative solution to persistent problems – by taking the existing Regulations for Domestic Services as the starting point for its T&Cs (art. NL3, art. NL7).

Helpling's T&Cs underwent substantial changes. Originally, in 2014, the platform applied the standard practice of controlling the quality of cleaners. It publicly explained the various ways in which Helpling wanted to ensure the quality of cleaners via pre- screening, the establishment of a monopoly of transaction, and the ban of cleaners with bad reviews. That was evident in both Helpling's public communication (art. NL3, art. NL4) and its T&Cs (Version 1, 2), where pre-screening was referred to as follows: 'Helpling checks once in a personal conversation with the service provider his background, references and experience'.

Helpling initially also prohibited contacts with extant clients outside the platform (Version 1, 2), but also removed this restriction in 2016 (Version 3). Finally, as the Regulations for Domestic Cleaning view individual cleaners as a special type of independent contractors with certain protections, Helpling NL prohibited outsourcing to other parties (Version 1, 2), which contrasts with its practices in other countries, except Germany.

In 2016 though (Version 3), two years after the platform was introduced, many of those provisions that have limited cleaners in their freedom of how to execute their service, were eliminated from the T&Cs of Helpling NL. More specifically, the platform dropped any references to on-boarding interviews, prohibition of contacts outside the platform and the prohibition to outsource work to other parties (Version 3).

Despite its efforts to deflect any criticism around working conditions, the platform did not escape the attention of the largest union FNV. In January of 2018, following a lawsuit against Deliveroo, the trade union turned to Helpling. FNV claimed that the platform should be classified as an employer, a claim grounded inter alia in the fact that workers were not allowed to set their own prices (art. NL6) and to transact outside the platform (art. NL8). In addition, some labour law experts (art. NL8, art. NL10) and incumbent temp agencies (art. NL10, art. NL12) raised the issue of legality.

As a consequence, the question of wage setting and minimum wage became a point of concern that also translated into a change of Helpling's T&Cs in the Netherlands. Since 2016, the average hourly wage on the platform was around 11 to 12 Euro – after the plat- form had received its 20% commission, but before any taxes were paid. At the same time, the minimum wage in the Netherlands stood at almost 9 Euro. Although it would be well within its ability to allow even lower wages, Helpling consciously refrained from doing so and later (in 2019), as a reaction to the aforementioned Deliveroo-lawsuit by FNV, even abandoned price setting altogether as the first out of the five countries studied here. According to Helpling's executive, the core reason for no longer determining cleaning prices was that the platform would risk being engaged in a potentially dangerous political and PR feud with trade unions and political parties (Frenken et al., 2017). Such an event would not only lead the platform to be seen in a bad light, but it would also risk legal action and the potential of being subjected to unfavourable regulation as an employer. Accordingly, Helpling now allowed workers to set their own wages, whereby the platform continued to ensure a wage minimum, now of 16 Euro per hour. Furthermore, the platform also chose to incorporate the Domestic Cleaning Regulation into its regular cleaning activities.

A year later, in 2019, the union FNV won its lawsuit against Deliveroo, which forced the platform to hire its couriers as employees and to pay them within the context of the sectoral labour agreement (art. NL16). Emboldened by this development and the possibility to apply a similar rational to other platforms, FNV quickly filed a lawsuit against Helpling (art. NL17). In this case, however, the court ruled that domestic cleaners would fall within the scope of the Regulations of Domestic Services, implying that they would not be considered employees of the platform (art. NL18, art. 20). Nevertheless, because Helpling obtained a commission from its cleaners, the court placed Helpling into the category of a temp agency. The equally obvious and simple response by Helpling was to adjust

is business model and to collect the commission from its clients rather than its cleaners (art. NL22) which, in turn, ensured that Helpling could continue to operate as a gig platform with independent contractors under the Regulations of Domestic Cleaning. Furthermore, the ruling allowed Helpling to reintroduce the prohibition of contact (monopoly of transaction), even introducing a fine of 500 Euro for any client who attempted to bypass the platform (Version 6).

In sum, Helpling was seen as a particularly disruptive force in the Netherlands, thus provoking strong reactions from the social partners which forced the platform to change its initial business model enshrined in its T&Cs in various ways.

France

The French version of Helpling presents yet a different context, which is rather deviant from any other country examined. Interestingly, Helpling FR acts as an intermediate not only between domestic cleaners and households, but also between households and professional cleaning companies which can take a variety of legal forms (e.g. SA, SAS, SARL, EURL or auto-entrepreneurs). This peculiarity can be understood by considering the pre-existing regulation in France, which provides households with tax benefits if they choose to hire professional cleaners. Nevertheless, a significant share of domestic cleaning remained informal in France. And, as in the case of Germany and the Netherlands, Helpling also framed its service in France as a way to solve the political issue of informality in the domestic cleaning sector (art. F1, art. F2).

The most significant implication of cooperating with a number of different legal entities is that work can either be subcontracted to another party, or performed by employees of those corporations, which are collectively referred to as 'partners'. Furthermore, the latter are responsible to assure compliance with all the relevant regulations regarding fiscal and labour issues.

Importantly, though, this position of intermediation transformed in the course of time. In the first version of Helpling's T&Cs (of 2017), the platform assumed a more active role in the hiring process by pre-screening the certificates of some of the service providers and by setting prices (Version 1). Helpling also prohibited to transact with extant clients outside the platform (Version 1). Later, in 2019, all these provisions were retracted, thus maximizing the entrepreneurial freedoms of cleaners (Version 2). This again illustrates the importance for Helpling to only be perceived, and act as, a 'marketplace' between any cleaning 'partner' and client.

The retreat of Helpling France into a minimum role of intermediary is also apparent from its changing role in the proper declaration of income. In the first T&C version available, the platform took on the role of guaranteeing that partners were complying with their commitment to declare all relevant income to the platform, which subsequently informed the client. Later though, in 2019, the

platform referred the responsibility of proper income declaration directly to the cleaning partners.

Contrary to the cases of Germany and the Netherlands, Helpling in France did not provoke much public debate nor specific responses from the social partners or the government. In this case, the platform chose to adapt to the existing institutional context of domestic cleaning work, further reinforcing both the platform and the institutions it adapted to.

5.6 Cross-country analysis

The country cases show that Helpling started out with T&Cs that were very similar across countries. Helpling's use of similar T&Cs across countries can be understood as typical for platform companies that seek rapid internationalization. However, over time, we find that Helpling substantially adjusted its T&Cs in different countries in different ways so as to adjust them to different national contexts.

Two specific observations can be made in this respect. First, while Helpling made only one change in the T&Cs in the United Kingdom and Ireland, it implemented three changes in France, Germany, and the Netherlands. What is more, Helpling made one further change in Germany and the Netherlands, which were later reversed. The cross- country comparison thereby provides evidence for the relative stability in the liberal market contexts of Ireland and the United Kingdom and a more turbulent evolution on the European continent.

Second, we observe that, over time, the variety in T&Cs across countries increased. In particular, we can see that the French and German T&Cs became more dissimilar from the United Kingdom and Irish model. The United Kingdom and Ireland retained the original Helpling model with the single exception that price setting was transferred to cleaners. In these countries, Helpling thus maintained a high degree of control over its workers despite their classification as independent contractors. In France and Germany, by contrast, Helpling altered its business models in multiple ways, following different trajectories but ending up with similar T&Cs in which the control over workers was removed so that cleaners were effectively treated as 'true' independent contractors. In the Netherlands, in turn, Helpling constitutes an in-between case, which is different from the United Kingdom and Ireland in only one aspect (no pre-screening interviews) and different from France in one other aspect (monopoly of transaction).

The clustering between the two main groups of platform business models, with the United Kingdom and Ireland on one side and Germany and France on the other can be mapped onto the original Varieties of Capitalism theory as laid down by Hall and Soskice (2001), similar to the comparative study on the platformisation of the logistics sector in the United Kingdom and Germany (Hassel and Sieker, 2022). One key finding of our media analyses is that Helpling

met little institutional friction or opposition by unions in the typical LMEs of the United Kingdom and Ireland. Acting within an institutional environment characterized by a high degree of labour-market flexibility and a low degree of worker protection, the platform faced little pressure to adjust its business model. Its introduction and evolution did not raise major public concern from the social partners or other actors, a fact also reflected by the very few media articles on Helpling. Subsequently, the lack of institutional friction allowed the platform to maintain the gig-economy model as originally invented in the United States, without facing the danger of being classified as an employer.

In France and Germany, the institutional framework led the platform to rethink its business model, adapting it in such a way as to decrease friction and increases institutional fit. In the case of France, Helpling's strategy was to adjust to an already established regulatory framework that had formalized domestic cleaning at the sector level through a tax benefit scheme for clients. Indeed, the resulting T&C modifications all involved changes that equalized the entrepreneurial freedoms of cleaners with those of professional cleaning companies. As the regulation was already in place and well institutionalized when Helpling entered the French market, the process of the platform's adaptation was rather straightforward with no specific involvement of trade unions and little public debate (also evidenced by the few media articles about Helpling). This finding shows that clear regulatory frameworks already in place, consonant with the notion of France as a state-enhanced market economy, notably affected Helpling's adaptation strategy.

Helpling also moved away from the initial T&Cs in Germany, as it did in France, but following a quite different trajectory. Contrary to the state-enhanced market economy in France, a sectoral regulatory framework was lacking in the coordinated market economy of Germany, which implied that the platform had to adapt its business model in an ad-hoc fashion. In Helpling's early days in Germany, adaptations were primarily motivated by the aim to improve the sluggish financial performance of the platform rather than by the aim to arrive at an institutional fit and a dialogue with the social partners. Later on, however, unions and industry associations increasingly raised concerns about low pay and the lack of social security, also reflected in the many media articles about Helpling Germany, prompting further changes to the platform. The latter dynamic can indeed be understood as a reflection of the underlying labour institutions that characterize Germany as a coordinated market economy, which has also been highlighted in previous work on other gig platforms in Germany (Funke and Picot, 2021).

The Dutch case, as a coordinated market economy, presents an insightful anomaly. While Helpling was severely criticized by the unions (art. NL8, art. NL16) and labour- market experts (art. NL8, art. NL10), and although the platform changed its T&Cs throughout the period observed, the final outcome of its T&Cs is very close to the original gig-platform model combining maximum control by

the platform with maximum flexibility for workers prevalent in LMEs. The only difference to the United Kingdom and Ireland is that intensive pre-screening is no longer mentioned in the T&Cs of Helpling the Netherlands. Helpling's high control over cleaners in the Netherlands can be explained by the peculiar pre-existing Regulation for Domestic Services, through which a special category of independent contractors was created including with some social rights. This specific category is similar to the third category of 'worker' in the United Kingdom in that it provides a possibility to avoid classifying cleaners as regular employees or independent contractors. Using these specific regulations as a baseline, Helpling could thus create a more legitimate architecture in its T&Cs, along with a standard line of defence whenever the platform needed to react to public criticisms. In this way, Helpling the Netherlands could sustain the original gig-platform model as originally invented in the United States, despite repeated criticisms by unions and experts. This contradiction partially explains why, compared to other countries, one can observe such a strong reaction on the part of the Dutch unions. The existence of a special category, where domestic workers enjoy only minimum labour rights, effectively created an 'enclave' of liberalization within a context of domestic work. Social partners view this contradiction as a potential threat to their immediate interests, and if left un-controlled, to their institutional position. In an attempt to defend that position, the Dutch unions actively strived to undermine this position, seeking to enforce traditional labour market regulations within the cleaning sector – but with limited success thus far. Taking together the cases of the Netherlands and France, our study shows that the national institutions characterizing a coordinated market economy like the Netherlands may, by themselves, have little predictive power explaining the institutional responses to gig economy platforms and the platform adaptations that follow. Rather, platforms seem to adapt to the more specific sectoral regulations that apply to the service sectors in which they operate, which may be flexible and enabling the platform model (as in the Netherlands), or strict and constraining the platform model (as was shown in the case of France).

5.7 Conclusion

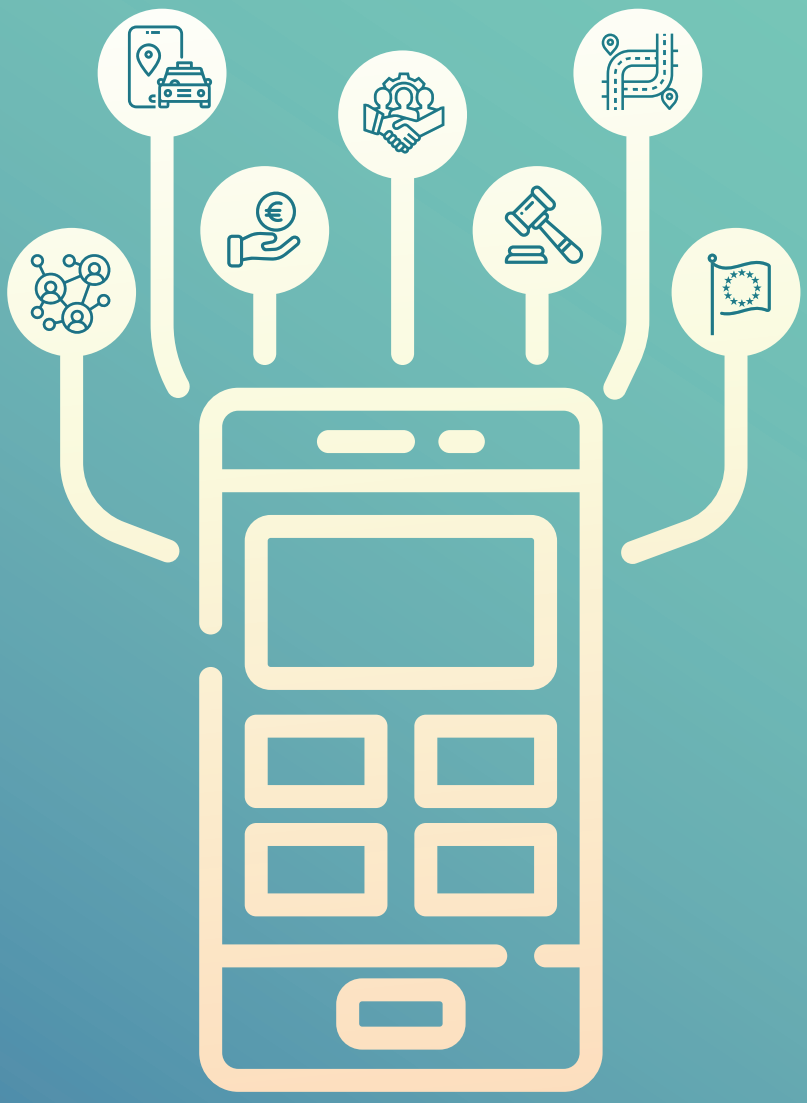
The rapid proliferation of gig platforms in Europe has given rise to a major debate regarding their compatibility with existing labour market institutions. Platforms claim that the use of independent contractors is an innovative way of providing flexibility to both gig workers and clients. However, the control that platforms exercise inevitably bears a number of regulatory questions regarding pay, social security and working conditions. Our aim in this paper was to explore, in different national contexts, how the same gig platform responded to the regulatory frictions that emerged in five European countries. To that effect, we analysed the evolution of Europe's leading domestic cleaning platform, Helpling, by tracing the changes

in its T&Cs that workers have to accept to get cleaning jobs via the platform.

Helpling's model aims to reconcile two conflicting logics: namely to provide high quality services through the enforcement of common standards over workers and close monitoring of their activities resulting in a high degree of control (corporation logic), while maintaining the status of independent contractors of gig workers by granting them the freedom to select their own gigs (market logic). In an effort to maintain this balance, the platform tweaked several aspects of its T&Cs related to the employment status of workers, but did so in different ways within the various countries it operated. When analysing these T&C modifications, our study shows that gig platforms are, by no means, immune to national regulations. On the contrary, we found that a platform may well adapt to the specific institutional constraints of national labour-market regulation. Our findings thus cast doubts on the notion that platforms, as a new organizational form, would operate in an 'institutional void' (Bothello et al., 2019; Elert and Henrekson, 2016). Our study instead shows that Helpling maintained the original gig model, combining maximum control with independent contracting, in those countries where the platform experienced little friction with existing laws and regulations (United Kingdom and Ireland). In other countries, it leveraged existing, yet malfunctioning regulations in its favour (the Netherlands), or adapted its T&Cs responding to union critiques (Germany). And in a country with strict sectoral regulations (France), Helpling actively adapted to the context already in place.

Ultimately, this is a strong indication that national governments and unions are not powerless in the face of platformisation (Van Dijck et al., 2018). On the contrary, national and sectoral regulatory contexts can shape the international activities of platforms by influencing their national modus operandi. Yet, to date, the adaptations made by plat- forms have not solved the legal conundrum regarding the employment status of gig workers. Rather, platforms such as Helpling adapt their T&Cs tactically, precisely in order to preserve the status of independent contractors of their gig workers. In doing so, at least for now, platforms have successfully managed to preserve their status of e-commerce intermediary, thereby avoiding that gig workers are classified as their employees (McGaughey, 2018; Walker, 2020).

Understanding platform evolution thus requires a careful analysis of institutional con- texts at both national and sectoral levels, as much as of the digital technologies and innovative business models that they employ. It is the constant interplay between plat- forms and institutions, and the mutual learning processes emerging from it, that shapes the phenomenon we call the 'gig economy'.



CHAPTER 6

Conclusion

6.1 General findings

The gig economy is a novel phenomenon with the potential to radically transform the nature of work, and subsequently the nexus of industrial relations developed around employment, which is central to the contemporary socio-economic production model in Europe. Similar to any other innovation, the gig economy does not exist in a vacuum, but it is embedded within a broader institutional environment. Nevertheless, so far there has been only a limited understanding of the institutional influences on the gig economy, and particularly on its central actor, i.e. the platform. In the preceding chapters, I first conceptualized the gig economy and its regulatory problems (Chapter 2), and then examined empirically the effects of national institutions on the platform during various stages in its life, namely founding and internationalisation (Chapter 3), the institutional reactions received from stakeholders in different national contexts (Chapter 4), and its adaptation to such reactions in different national contexts (Chapter 5).

Upon descending on the study of a new phenomenon, the researcher may face a profound, and unwelcome, challenge: a lack of broader conceptualisation and theoretically grounded definition of it. That was the first challenge also faced by the author of this dissertation when he attempted to explore a concept which back in 2018 was rather vaguely defined. Furthermore, the rapid proliferation of a few highly salient platforms, such as Uber, posed significant challenges to national regulators, as they found themselves dealing with an innovation over which they had a limited understanding or control. Thus, I was inclined to begin my study by exploring what is the gig economy, and what are the major regulatory questions that it poses. In **Chapter 2**, I identified four major dimensions along which we can conceptualise the gig economy. Those revolve around (1) the online intermediation through the platform in comparison to traditional offline means of labour intermediation; (2) the employment status of gig workers as independent contractors contrary to that of a dependent employee; (3) the monetary nature of the transaction in contrast to unpaid, voluntary services; and finally, (4) the question of whether or not the gig economy revolves solely around the provision of services or it also extends to the provision of goods. Along each of these dimensions the gig economy can be understood in a narrow or a broader sense:

1. Online intermediation through platforms and the subsequent algorithmic management that they entail forms the fundamentally distinctive characteristic of what scholars call the gig economy. Nevertheless, it does not change the nature of the provided gigs – whether in the form of onsite tasks, such as home-cleaning, or online task, such as translation – thus allowing for a conceptualisation of the gig economy similar to that of traditional provision of services.
2. Gig workers are most commonly treated as independent contractors by the platforms, with little access to traditional employment rights. Certain platforms though, are hiring their gig workers, while others experiment with

a mixed employment model of core, fully employed workers combined with peripheral, self-employed gig workers.
3. Labour in the gig economy is compensated, but it also includes a substantial component of unpaid labour. A typical example of that is waiting times between rides for ride-hailing drivers. Hence, while the fixed pay per task may be quite high, the earnings per hour may be well below minimum wage. What is more, gig economy platforms have become active in voluntary work, sometimes providing a small compensation for costs incurred.
4. Finally, the dichotomy between the provision of goods and services proves rather difficult to establish, as most services require equipment which is provided by the gig worker, e.g. Uber drivers with their cars.

While the four dimensions can be thought of as dichotomies (online vs. offline intermediation; employment status vs. independent contracting; paid vs. unpaid, services vs. goods), this conceptualisation makes clear that in many instances, the dichotomies are better understood as a continuum. Subsequently, each of those four dimensions raises its own regulatory questions regarding the setting of boundaries, the exact nature of which depends on the selected definition. Thus, the following regulatory questions arise: (1.) how should gig economy platforms be classified with regard to the type of services provided, (2.) how should gig workers be classified with regard to their employment status, (3.) how to deal with unpaid and unpaid gigs, and finally, (4.) how to deal with services whose provision also includes the use of personal assets? Those questions do not have a single answer, rather the outcome depends upon political decisions made along the respective dimensions. In chapter 2, we provided some reflections on this process specifically within the European context.

From a scholarly point of view, given the context at hand, any definition along those dimensions could be valid, as long as it is clearly expressed as such. For the purpose of this thesis, I used the narrow definition of the gig economy as "the ensemble of ex ante specified, paid tasks carried out by independent contractors mediated by online platforms".

Investigating the first two stages of a platform's life, **Chapter 3** focused on founding and internationalisation, and the effect that national institutions have on them. I further attempted to decipher the effect of geographical factors in those two processes. The topic is approached from two sides: from a geographical perspective, I asked the question what explains the location decision of start-ups as they develop a new platform, particularly focusing on the city size and national institutions that may explain differential urban founding rates of gig economy platforms across Europe. Furthermore, from a platform perspective, I asked the question what city characteristics and national institutions support the chances of successful internationalization of gig economy platforms. The rate of internationalisation can be understood as a key sign of a platform's business success.

Using a novel dataset of European onsite gig economy platforms, the chapter identified the opposite effects of geographical and institutional factors on founding and internationalisation. More specifically, the results showed that city size and capital status of a city have a positive effect on the number of foundings of new gig economy platforms in cities. However, these platforms did not experience higher rates of internationalisation hereafter. The positive effect of larger cities can be explained by the fact that they provide both the supply and the demand conditions kick-starting platform operations in a particular city. More specifically, the positive effect of large cities can be understood in terms of the pools of gig workers and urban clients, which allow gig platforms to generate the necessary network externalities. Platform founders may therefore preferentially select large cities in order to benefit from these externalities. Other favourable conditions include the existence of entrepreneurial talent, availability of specialized labour, and access to investment capital and learning opportunities, all of which are more likely to be found in large urban centres than in small cities. The two latter effects may also explain the positive effect of being the capital city in a country, as investment is often (though not as a rule) concentrated in capital cities, acting as financial centres. Furthermore, learning opportunities about institutional and regulatory issues may be stronger in capital cities.

Regarding national institutions, we find opposite effects for founding and internationalisation. The existence of a well-developed venture capital system has a positive effect on the founding of new platforms, but not on their subsequent internationalisation. By contrast, the existence of innovation-enhancing, and flexible labour market institutions have a positive effect on internationalisation, but not on the founding rates of new gig economy platforms. The unique effect of venture capital availability can be explained if we consider that it forms an attraction point for entrepreneurs who seek funding for their new venture. The fact that it has no positive effect on the rate of platform internationalisation could result from the trans-local nature of venture capital, meaning that platforms may not be dependent on their domestic venture capital players when expanding across national borders, but instead tap into the venture capital players in the host country holding more local knowledge about a profitable opportunity. The results on institutions related to innovation, and labour market flexibility indicate that platforms founded in countries with particular favourable institutional conditions face fewer frictions during their early stages of operation. Even more, they can benefit from these institutional resources, thus allowing platforms to direct more of their own resources to establishing local market shares early-on. This, in turn, may support international expansion through reputational gains, international brand recognition, and access to foreign venture capitalists.

Chapter 4 dives deeper into the role of national institutions on the evolution of the platform, by examining the specific conditions which will instigate a higher volume of negative institutional reactions following a platform's entry to a new

country. Building on previous research by Kim & Suh (2021) and Punt et al. (2021), the chapter focused on the ride hailing platform Uber, which experienced rapid internationalization following its creation. The results revealed that Uber faced significant negative institutional pushback – within Europe and beyond – centred around the legality of the platform as evident by the high number of legal challenges against the platform. Furthermore, negative institutional reactions followed a specific temporal pattern where direct enforcement through legal bans and police enforcement preceded court cases, followed by specific, tailor-made regulations. The latter came into play once regulators have developed an understanding and subsequent response to the introduction of the platform. Interestingly, reactions centred around the labour aspect of Uber's business model were relative few, and only emerged in later stages.

With regard to the institutional conditions that provoke a higher degree of negative reactions, the results of the regression analysis showed, as hypothesized, that the existence of a well-functioning legal system positively affects the number of reactions. Unlike the hypotheses proposed, however, institutional openness to innovation, the degree of stringency of labour market institutions and the significance of informal work seem to have no effect on the number of reactions. Those results are further complemented by the time-to-event analysis which finds that in countries with a well-functioning legal system and smaller size of informal sector in labour market, the first negative reactions appear earlier.

Overall, I concluded that despite Uber's innovation-friendly narrative, societal and formal actors remained sceptical of the platform model applied by Uber. This was especially the case whenever Uber operated within the context of a well-functioning justice system. This finding may be explained in two ways. First, a robust legal system increases the number of available legal means which can be mobilized against disruptive innovations. Second, actors have a greater familiarity and, possibly, lower enforcement costs in using such means. This study thus highlighted the important role of the legal system in resisting disruptive innovations.

Finally, in **Chapter 5**, I examined how platforms respond to negative reactions by societal actors and the institutional pressures they are subjected to. To this end, the empirical focus in this chapter was on one of the leading European domestic cleaning platforms: Hepling.com. More specifically, I examined how Helpling structured the employment relations with its gig workers across five European countries, and how these conditions change across time, as the platform establishes itself in the respective domestic markets. In order to decode those conditions, I examined Helpling's Terms and Conditions documents, with the analysis being complemented by media sources for each country case. The findings showed that Helpling began its operations with Terms and Conditions that were similar across all five countries, but they gradually began to diversify the business model as the platform was forced to adapt to the local institutional context. Over-

time changes were more prevalent and frequent in countries with more stringent employment regulations (Germany, France, The Netherlands), while there was little change in the original model in countries with more flexible labour markets (Ireland and the UK). In particular, Helpling in Ireland and the UK managed to maintain a platform model which combines high degree of control over its workers despite their classification as independent contractors. By contrast, Helpling was forced to cede some of the control over its gig workers in order to preserve their independent contractor status. Finally, the Netherlands constitutes an insightful, in-between case of a country with a regulated labour market where the platform made only few adaptions over time.

I further probed the evolution of Helpling's platform model in different countries in the light of the Varieties of Capitalism theory (Hall and Soskice, 2001). The UK and Ireland are typical Liberal Market Economies, characterized by a high degree of labour-market flexibility and a low degree of worker protection. In this institutional context, Helpling met little institutional friction and opposition by societal actors, resulting in low adaptive pressure as it could maintain the core of its business model without the trade-off of reducing the degree of control over its workers. By contrast, in France and Germany, the institutional reactions led the platform to rethink its platform model, adapting it in such a way that institutional frictions were decreased and institutional fitness increased – but in different ways: In France, a State-enhanced Market Economy with high degree of employment protection and state regulation, Helpling encountered a framework that had already formalized domestic cleaning at the sector level through a tax benefit scheme for clients, with the platform adopting to it relatively quickly. In Germany, the typical case of a Coordinated Market Economy, the platform's model was met with opposition from societal actors, which resulted in its own, unique trajectory of adaptation. In the Netherlands, the second Coordinated Market Economy in the sample, the platform was able to successfully leverage a pre-existing regulation on domestic services, which allows for domestic workers to be employed as independent contractors with some limited protection. And Helping did so despite significant pushback from societal actors including unions, which regarded this approach as a "Trojan horse" of deregulation of the labour market.

Having briefly described the findings of each chapter, it becomes possible to **shed light on the original research question underlying this dissertation: how are onsite gig economy platform affected by national institutions?** First, gig platforms do not operate in an institutional void but are affected by the prevailing institutions, with evidence suggesting that institutions can both facilitate and hamper the platform's operations and evolution. In Chapter 3, the results indicate that the presence of specific institutions in a platform's home-country (such as those promoting innovation, and labour flexibility) positively affect the probability of platform internationalization. And, the existence of a developed venture capital system in the home-country has a positive effect on the founding

rate of platforms. However, in Chapter 4 the research finds that the existence of a well-functioning justice system increases the volume of negative institutional reactions against platforms.. Additionally, in Chapter 5 we observe institutional effects by examining the adaptation process of a platform for cleaning services in the context of diverse regulatory regimes. The results clearly show that more stringent labour market institutions and sectoral regulations force gig platforms to tweak their business model towards granting gig workers more freedoms and autonomy in order to reduce institutional frictions and increase institutional fit. As those overlapping institutional layers result in diverse configurations for each country, so do the adaptation trajectories of the platforms, exemplified by the five country cases in Chapter 5. Crucially, the research shows that platforms are not passively subjected to institutional pressure. Rather, they possess agency which is manifested in their attempts to reduce friction through the construction of legitimacy. Any transformation through takes place with the explicit aim of preserving the core tenet of employing gig workers as independent contractors.

6.2 Theoretical implications

Each one of the above chapters provides insights in the effects of national institutions on the gig economy, and on how such institutions influence platforms during their development stages. In the following section, I will describe the three existing theoretical perspectives on the topic, and I will attempt to position my findings with regard to them.

The first perspective underplays the role of institutions, claiming that platforms' online presence, algorithmic management and pay-per-task put the platform beyond the reach of existing institutions, which are not adequately evolved to accommodate them (Elert & Henrekson, 2016; Sundararajan, 2016). Following this perspective, platforms are regarded as operating in an "institutional void" (Bothello et al., 2019), where existing national institutions have little or no influence over their growth strategy, resulting in uncontrolled expansion and disruption of existing institutions. That a platform nevertheless can be effective in organizing gig labour can then be understood as the platform's ability, to organize the gig market as a "private regulator" through the platform's Terms and Conditions and various means of algorithmic enforcement ((Frenken & Fuenfschilling, 2021; Lehdonvirta, 2022)).

The results of this thesis, however, paint a different picture. One of the novel approaches of the thesis is that it goes beyond examining the interaction between platforms and institutions following their establishment. Rather, it looks at how institutions affect platforms in their very early stages. As it is shown in Chapter 3, platforms are not created in an institutional void; rather, they are influenced by institutions from the beginning of their existence. Institutions can play a

crucial role in facilitating or inhibiting the growth of new platforms. The degree of labour market flexibility, the openness to innovation and the lack of barriers for new market entries are all factors that critically affect a platform's chance to proliferate internationally. Furthermore, as we see in Chapter 4, institutions relating to the rule of law can affect the degree of opposition against platforms. And, in Chapter 5, we see that platforms adapt to specific institutional contexts in order to survive –with the degree of adaptation being higher in countries with a coordinated market economy in comparison to those with more liberal institutions. Nevertheless, it is also important to point out that some of the institutions under examination were found to have no effect whatsoever. Conclusively, institutions seem to play a critical but unequal role in the evolution of gig economy platform.

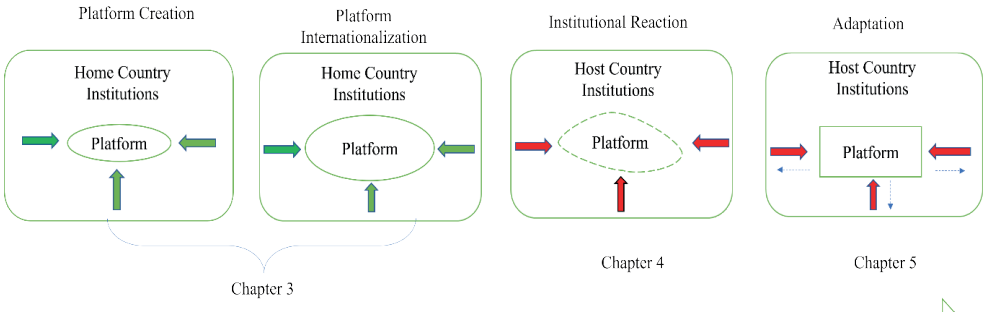
The second theoretical perspective in the existing literature provides a more nuanced picture where institutions have an effect on the way that gig platforms operate, albeit in rather unpredictable ways (Thelen, 2018; Pelzer et al., 2019). This perspective agrees with the first perspective in that pre-existing institutions fit poorly with the platform model, but it differs by emphasizing the mutual adaptation of national institutions and platform operations. The contingency of such processes is evident from the observations that even between countries with similarly broad institutional configurations(viz. Varieties of Capitalism), the gig economy can follow diverse trajectories of adaptation due to the particularities of overlapping institutional configurations, including the role of unions, and sectoral regulations (Thelen, 2018).

The results of this thesis are in line with this second strand of literature. Chapter 2 includes a detailed analysis of how diverse regulatory regimes –even within a common regulatory space, such as the EU –can result in different regulatory questions on topics like the taxation of services or the employment status of gig workers. And, referring again to Chapter 3 and 4, we see that only certain institutions affect the rate of platform foundings and internationalization as well as the degree of institutional friction. It is Chapter 5, though, that provides the most consequential insights in relation to this second theoretical perspective on how institutions matter in the gig economy. In the case of Helpling, the platform followed a distinct trajectory of adaptation in each country under study. Although adaptation was more intense in countries with less liberal institutional regimes, the precise regulatory trajectory of the platform depended on the exact institutional configurations in each country. In the Netherlands and France, for example, the platform was able to leverage the pre-existing regulation for domestic cleaning in its favour by creating an operational space and legitimizing its platform model based on independent contracting. These insights corroborate previous research of Thelen (2018) and Pelzer et al. (2019) who also emphasize that the historical, sectoral context affects the way in which gig economy platforms are perceived and institutionalised.

The third theoretical perspective stands in opposition to the first, claiming that national institutions have a significant effect on the gig economy. In particular, Uzunca et al. (2018) argue that platforms in countries with low degrees of institutionalization (often in the Global South) can shape government regulations and public perception to their advantage, while they are likely to face strong opposition in countries with high degrees of institutionalization (often in the Global North). Logically, then, the effects of national institutions in highly institutionalized contexts will be similar for countries sharing institutional characteristics, meaning that platforms follow predictable trajectories during their adaptation processes. My thesis finds some support for this thesis, as it observes in all three empirical chapters the effect of institutions on platforms in various stages of platform evolution. In Chapter 3, the findings indicate that institutions can have a positive or a negative role during a platform's creation and internationalization process. And, especially in Chapter 4 where the study focuses on institutional reactions in multiple countries, we indeed observe that the platform in question (Uber) encountered more opposition in those with a stronger rule of law. However, in Chapter 5, we observed that, despite the institutional similarities between liberal market economies (Ireland, the UK) and between coordinated market economies (Germany, the Netherlands), the trajectory of the platform in question (Helpling) was quite unique. What is more, many of the hypotheses regarding the effect of national institutions in Chapter 3 were not confirmed, showing that pro-innovation, and liberal labour market institutions had no effect on the founding rate of platforms, while the presence of developed venture capital seems to have no influence on the rate of platform internationalization.

Taken together, as depicted in Figure 6.1, the results of my thesis point towards unequal effects of national institutions, where the final outcome is defined by the interaction between the types of national institutions, sectoral institutions, and the stage of platform evolution. Accordingly, institutions can be clustered into two broad categories, namely those with a facilitating and those with an inhibiting effect on platform development During their early stages of creation, platforms make use of institutional resources as they grow and expand internationally. The existence of pro-innovation, pro-market and flexible labour market institutions thereby facilitate platform development during these stages. Those institutions are more compatible with the standard business model of gig platforms, which results in less friction. Consequently, platforms can focus their scarce resources on scaling-up, rather than towards regulatory compliance. As platforms internationalise and expand their operations, they enter new countries where they encounter institutional configurations different from those in their home country.

Figure 6.1: *National institutions and platform evolution: summary of findings*



Green arrows symbolise "facilitating" institutions, red arrows symbolise "inhibiting" institutions. Thinner blew arrows symbolise the transformative effect of the platform on the institutional environment around it. The shapes around the platform indicate the institutional effect growing from creation to internationalisation, moulded by institutional reactions, and finally adapted to national institutions.

Simultaneously, the novelty of the platform model raises questions about the legitimacy of the platforms' activities, and it instigates the reaction of societal actors who identify platforms as a threat. These instances are more likely in countries with stronger rule of law, where the actions of platforms are seen as more disruptive. Here, platforms raise more substantial questions about their legitimacy, while social actors have more legal means at hand to challenge platforms. The subsequent negative push-back towards platforms inhibits their growth and forces them to initiate two courses of action: legitimacy building and adaptation. These two activities can happen in concurrence with each other, as platforms attempt to preserve their business model and maintain their operations based on independent contracting and algorithmic management. Legitimacy building consists of an attempt by platforms to reduce friction by reshaping institutions in their favour, by emphasizing what they consider their "added societal value", and by direct lobbying to reshape regulation in a way that accommodates their business model. Simultaneously, though, platforms respond to institutional pressure by adapting themselves, tweaking their operations in a way that allows for the preservation of their core characteristics, namely the "independent contractor" model of employment for their gig workers who are managed algorithmically.

Effectively, institutions and gig platforms shape each other in a process of co-adaptation, where platforms evolve as a result of pressure from institutional frictions, while they simultaneously and actively build legitimacy and reshape institutions to accommodate their business model. Moreover, institutions themselves incrementally built the capacity to accommodate the business model of platforms, either by enforcing existing regulations or through the development of new regulatory instruments.

6.3 Limitations

No study is complete without an adequate presentation of its limitations, which in this case revolve around data availability and quality. The first limitation concerns the use of the national institutions data, taken form the IPD 2016 dataset and used in the analysis for Chapters 3 and 4. Although this particular dataset provides an extensive selection of institutional indicators, which is useful for the study of specific institutional conditions, it also comes with certain pitfalls. First, these indicators refer to very broad institutions that structure a country's entire economy, while the focus of my study has been on low-skill service sectors. Second, these data are collected through expert reports rather than objective measurements for each individual indicator, which could result in the introduction of potential individual biases in the final institutional score.

A second limitation revolves around the use of platform's Terms and Conditions (T&Cs) in Chapter 5 as my main data source. These T&Cs were collected using the internet archive, and they present a variation in the number of versions available for each country. This fact allows for the possibility of omitted data in the form of missing T&Cs version which were not stored nor retrieved. More importantly, though, the T&Cs do not reflect the totality of a platform's business model, but only those aspects that the platform is either legally obliged or willing to include in them. Subsequently, the T&Cs are used in a deductive way which required the triangulation of our results with other data sources. This approach was selected as platforms are generally unwilling to provide access and data to independent researchers.

A third limitation is the fact that each empirical chapter of this thesis approaches the research question by looking at a different set of platforms. In Chapters 2 and 3, I looked at all gig economy platforms operating and founded in Europe, respectively. In Chapters 4 and 5, by contrast, I investigated a single platform, looking at Uber and Helpling, respectively. While using multiple empirical perspectives to address the dissertation's overall research question allows me to explore different perspectives, it also introduces some biases. Most importantly, the lack of focus onto a single set of platforms throughout the thesis as a unit of analysis limits the understanding of the process of institutional influences in the various stages of a platform's life. Furthermore, the cases of Uber and Helpling are to some extent specific, as these platforms managed to scale their operations in many countries, while most gig platforms operate only in one or very few countries.

6.4 Generalizability

These limitations also warrant a discussion of the broader scope of the findings. First, my work focuses exclusively on the onsite gig economy. The online gig economy, which developed in parallel to its on onsite equivalent, has also grown exponentially over the past decade. Due to its digital dimension, the online gig economy has been significantly less visible to and, hence, been met with less scrutiny from societal actors. Furthermore, because requesters and gig workers do not have to be in geographical proximity in the online gig economy, with transactions often taking place across national borders, it has proven significantly more challenging for regulations to be enforced over them. Due to the particular nature of the online gig economy, the conclusions of this research about the onsite gig economy should not be extrapolated to the online gig economy.

Second, in both Chapters 4 and 5, the focus is on one specific platform case (Uber and Helpling, respectively). As noted before, their trajectories reflect the unique strategies these platforms employed in the course of their expansion, which triggered a distinct regulatory response. Subsequently, the extent to which the conclusions drawn also apply to other platforms within the same sector is not clear, because these two platforms were relative trailblazers with rapid ascension resulting in their increased salience. Furthermore, the extent to which we can generalize our conclusions to other onsite gig platforms operating in other industries is also limited. As previously explained, institutional effects are conditioned upon the interaction between national and sectoral regulations in each country. Thus, platforms active in other sectors face different challenges and opportunities due to the diverse regulatory conditions of their respective sector.

A third issue concerns the 'directionality' in my research. I have focused my study on the ways in which institutions affect the gig economy platforms rather than the other way around. Nevertheless, as it is evident in Chapter 5, platforms are not passively subjected to regulatory pressure. Rather, they possess agency which they mobilize in order to reduce friction and create the necessary space to operate. While their agency has been evident in Chapter 5, less emphasis in this chapter has been on how Helpling actively tried to lobby for changing institutions in its favour (Pelzer et al., 2019). Furthermore, Chapter 3 did not examine how platforms' early experiences regarding regulation in some countries shape their future internationalization strategies. Similar to other multinational corporations, gig economy platforms have the ability to learn from previous encounters with institutions and, subsequently, to apply these lessons in their future operations. Even more so, we can assume that platforms are engaged in a process of mutual learning, where they incorporate lessons learned from other platforms activities into their business model.

6.5 Future research

This thesis could be seen as the first step into exploring the broader phenomenon of the interaction between gig platforms and institutions. The findings do not paint the whole picture though, but they point to important aspects of this phenomenon which merit further investigation.

A first avenue for future research is the importance and effect of sectoral regulation within the broader context of national institutions. The need to take into account the sectoral context next to the national context has also been highlighted in the literature on Varieties of Capitalism (Crouch et al., 2009). Labour markets are not only regulated by institutions at the national level, but they are also characterized by sectoral regulations. These regulations are put in place in order to address specific conditions which are found within an industry or an occupation, either relating to the working conditions and employment rights, or to the organization of a specific market (Thelen, 2018; Pelzer et al., 2019). In Chapter 5, I accordingly highlighted how previous sectoral regulations in the cleaning sector moulded Helpling's business model in France and the Netherlands. In both cases, it becomes evident that platforms operate at the intersection between those two regulatory spaces, and it therefore is the interaction which shapes the final business model. As gig platforms expand to include new services, beyond the original of transportation and delivery, future research could examine how sectoral regulations affect platforms, particularly in high-skilled professions (e.g. legal services, medical advice, consulting), where labour supply is strongly controlled by a network of institutions, such as industry associations, and certification boards.

A second avenue for future research revolves around the examination of the co-evolutionary process between platforms and institutions. As explained above, the present thesis focused on the effects of national institutions on gig platforms. Nevertheless, in Chapter 5 the study of the adaptation process for Helpling indicates that some institutions themselves went through a process of adaptation, as they tried to accommodate, to a certain extent, the innovative platform model. The result is a dialectical process where platforms and institutions were engaged in an attempt to influence each other while affirming (or claiming to affirm) their position. What underpins this process is a quest for legitimacy, where institutions attempt to maintain their authority by performing the functions they were designed to fulfil. Platforms, in turn, try to gain legitimacy either by partially conforming to existing regulations, or by directly attempting to reshape regulations in order to accommodate them. These opposing forces result in a co-evolutionary adaptation between platforms and institutions. Future research could examine how institutions themselves adapt to the pressure created from the introduction of platforms, as they attempt to make sense of, and respond to, the challenges of innovation.

6.6 Policy implications

Given the continuing political debates surrounding the onsite gig economy across Europe, this thesis also offers some policy implications resulting from my findings. Although the effect of policy and regulation on the relationship between gig platforms and institutions is only partially addressed in my work, (particularly in Chapters 2 and 5), it is nevertheless possible to draw some implications, even if general, about the phenomenon and its evolution.

First, politicians and regulators view the gig economy as a novel phenomenon, with a digital platform managing self-employed gig workers, and thus as separate from traditional employment. In this regard, their understanding is very much in line with the "narrow definition" of the gig economy that I developed in Chapter 2. Second, until very recently, politicians have been mostly reluctant to regulate the gig economy, possibly due to a lack of understanding of its broader implications and lack of societal pressure. As a result, societal control over the gig economy has taken place through legal action from societal stakeholders and, to a lesser extent, through voluntary coordination between social partners. National legislative initiates have been few (even in Europe), with many countries referring the issue to the EU level. In response, the European Commission issued a Proposal for a Directive on employment rights of gig workers, which addresses the crucial issues of employment classification, algorithmic control and data ownership. While this proposal, with amendments, has passed the European parliament, it remains to be seen if the necessary consensus among the Member States will be reached to actually adopt the directive.

Nevertheless, the present study points to a number of issues which may affect the scope of regulation, and they should be taken into consideration by policy makers. Firstly, the gig economy is a diverse phenomenon which is not independent from traditional labour markets. As explained in Chapter 2, the gig economy can be defined more broadly than platform mediated activities. Consequently, a "one-size-fits-all" legislation could be inadequate as it may fail to cover all aspects of gig platforms. More importantly, though, as Chapter 5 shows, this diversity is correlated with the characteristics of specific sectors. Sectoral regulations and certifications are crucial to guarantee the quality of services and can add value to a profession by regulating access. Future regulations should thus incorporate that lesson and chose to focus their scope on specific sectors.

Secondly, as Chapter 5 showed, platforms can easily tweak aspects of their business model in order to accommodate changes in the regulatory environment. In doing so, they may still preserve the core of their business model (algorithmic management of independent contractors), while manifesting compliance. The digital nature of the platform, the flexibility of its algorithm and the versatility of its Terms and Conditions, provide the platform with the opportunity to quickly adjust in the case of a negative regulatory development, while sidestepping the

actual intent of the regulation. Future attempts to regulate the gig economy should be not only fit-for-purpose, but also limit the space that platforms may have for "performative" compliance. Politicians should make sure that legislative measures will indeed have the intended effect on platforms, leading to effective compliance rather than active avoidance.

Overall, the complexity of regulating the gig economy presents a particular challenge for policy-makers. Nevertheless, it should not be forgotten that similar to other innovations in the past, the gig economy remains within the realm of regulation, and it is up to our collective decision-making institutions to create the conditions which will allow to harness its value without compromising on established employment rights.

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Annex: List of Articles for Chapter 5

Articles per country: UK

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4. MATT CAINES. (September 18, 2016). Offering a legal alternative to the black economy; www.Hassle.com is taking its home-cleaning service nationwide. The Sunday Telegraf

Articles per country: Ireland

Article Number and Title
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3. Pamela Newenham. (November 20, 2014). New cleaning service hits 20,000 jobs in Dublin. The Irish Times.
4. (July 3, 2015). Home cleaning wars Helpling acquires Hassle to create Europe's latest super start-up. VentureBeat.

Articles per country: Germany

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3. (9. April 2014). Rocket Internet startet Putz-Portal. wuv.de Werben und Verkaufen Online.
4. Jonas Rest. (03. Mai 2014). Die Saubermänner; Eine ganze Reihe von Start-ups vermittelt Putzkräfte - nebenbei schaffen sie die Schwarzarbeit ab. Berliner Zeitung.
5. (19. Mai 2014). Wenn die Putzfrau zweimal klickt. Focus Magazin.
6. MICHAEL SCHREIBER & BRIGITTE WATERMANN. (1. Juni 2014). Legalize it!. Capital.

7. LAURA FLIERL. (21. Juli 2014). Nettolohn maximal 8 Euro; AGENTUREN Als Hausputzkraft können bereits Sozialversicherte etwas dazuverdienen. Davon leben kann
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9. (19. Oktober 2014). Verband Tagelöhnerei bei Putzportalen - Helpling widerspricht. dpa-AFX ProFeed.
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11. Jonas Rest. (25. Oktober 2014). Warnung vor Plattformen für Putzkräfte; Stiftung Warentest sieht rechtliche Unsicherheiten. Berliner Zeitung.
12. Jonas Rest. (02. Dezember 2014). Investoren stecken Geld in Putz-Plattform; Reinigungskraft Vermittler in Berlin wachsen schnell. Berliner Zeitung.
13. (12. März 2015). Saubere Geschäfte in den Emiraten Die Berliner Plattform Helpling vermittelt jetzt auch am Golf. Ein Kodex soll die Putzkräfte schüt
14. Jonas Rest. (26. März 2015). Berliner Putz-Portale rüsten auf; Helpling wirbt 43 Millionen Euro ein und schafft Jobs. Berliner Zeitung.
15. Mirjam Hecking. (31. März 2015). Helpling wischt Wettbewerber vom Markt
16. VON INGRID WEIDNER. (5. Juni 2015). Saubere Sache; Gute und zuverlässige Putzkräfte sind vo
17. Astrid Maier Philipp Alvares de Souza Soares. (24. Juni 2015). Ich schließe Festanstellungen für Helplinge nicht aus
18. (3. Juli 2015). Helpling übernimmt britischen Marktführer Hassle.com; Höhe des Kaufpreises nicht bekannt. Agence France Presse German.
19. Astrid Maier. (08. Juli 2015). Niemand muss bei uns bleiben
20. JOHANNES KUHN. (20. Juli 2015). Kehraus bei Homejoy; Der Putzdienst-Vermittler gibt nach drei Jahren auf. Süddeutsche Zeitung (inkl. Regionalausgaben).
21. Sebastian Wolff. (02. Oktober 2015). Helpling feuert ein Fünftel der Belegschaft; Putzkräfte-Vermittler will sich auf Kernmärkte fokussieren. Berliner Zeitung
22. Katrin Haas. (2. Januar 2016). Wie finde ich eine legale Putzfrau. Neuss Grevenbroicher Zeitung.
23. (5. Januar 2016). 'Wir sind attraktiv für Flüchtlinge'; Das Interview Helpling-Mitgründer Benedikt Franke wehrt sich gegen den Vorwurf, sein Putzportal
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32. (07. September 2018). Mehr Ein-Mann-Betriebe; HANDWERK IG Bau macht Wegfall der Zulassungspflicht verantwortlich. Mitteldeutsche Zeitung.
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2. HENK SCHUTTEN. (22 juni 2015). App verovert schoonmaakmarkt. Het Parool.
3. (9 juli 2015). Ceo schoonmaakstartup Helpling 'Banenpotentieel deeleconomie blijft onbenut'. Quotenet.
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Summary

The history of mankind is marked by technological transformations, with each one resulting in deep societal transitions. From the discovery of metals, to the invention of the internal combustion engine and the development of industry, advances in technology resulted in deep changes and adaptations in the economy, society and politics. Digitalization stands as just the latest example in this long history of technological innovation, and similar to all the others before, it comes with its own set of challenges and opportunities. In this thesis I explore a particular subsection of digital innovation: the gig economy platforms. Gig economy is a term used to refer to all those jobs which operate on a freelance, piece-by-piece basis. Although the gig economy pre-dates the introduction of digital platforms, it was only after those platforms were first invented, that the gig economy moved from a mostly local, relative small market, to a huge even global digital labor marketplace. One of the main characteristics of the gig economy is that gig workers are employed as freelancers, regardless of the factual circumstances of their employment. Consequently, serious questions have been raised regarding the validity of such an employment model and the role of the platform, the consequences on social security systems and labor law, and its long term effect on the nature of employment itself. Some societal actors (particularly trade unions) have been adamantly opposed to the wide adaption of this model, fearing the undermining of employment rights. At its core though, lied the question of whether or not societies can collectively control digital innovations, or if they represent a completely new space where existing rules cannot be enforced.

The aim of my thesis is to delve deeper in this question, and explore how gig economy platforms interact with established institutions and regulations, and particularly how (and which) institutions shape those platforms over time. My analysis is limited to the on-site gig economy, meaning, those platforms that only offer services in the physical space, as opposed to those offering services on-line.

The results paint an interesting picture. Firstly, I find evidence that institutions have the ability to affect gig economy platforms' operations and evolution, both in positive and negative ways. My analysis begins with the earlier stage of platform life, which are its creation and internationalization (the number of countries where it enters and is active). The results show that the existence of a developed venture capital system in the country of origin will lead to the creation of more platforms there, while the existence of institutions which promote innovation and labor flexibility will have a positive effect on platform internationalization. Nevertheless, this process of internationalization does not always unfold smoothly, as platforms interact with different national institutions in every new country they enter. As I found while examining Uber's expansion worldwide, the process was often met with significant resistance from national institutions such as governments, local councils, the police, etc. Negative reaction was increased in

countries with a well-functioning justice system, as Uber's operations were more likely to be seen as "law-breaking", and there are more available legal means to be used against it.

Finally, I explore how platforms react to the aforementioned institutional pressure. Using the domestic cleaning platform Helpling as my case study, I observe that when met with more stringent labor market institutions and sectoral regulations, platforms will adopt their business model in a way which allows them to preserve their core functions. In this case-study, the platforms chose to maintain its cleaners as self-employed by reducing its control over the way they executed their work. That process was partially mutual, as institutions also learned and adopted in the challenges posed by those platforms.

Conclusively, we see that despite the hype around the novelty and uniqueness of gig economy platforms, their trajectory can be regulated by collective societal institutions. Innovation does not render social rights redundant, as long as there is adequate political will to preserve them.

Samenvatting

In de geschiedenis van de mensheid zorgen technologische transformaties dikwijls tot diepgaande maatschappelijke veranderingen. Dat was te zien bij het ontdekken van metaal, de uitvinding van de verbrandingsmotor en de ontwikkeling van de industrie. Deze technologische vooruitgang leidde tot diepgaande veranderingen en aanpassingen in de economie, maatschappij en politiek. Digitalisering is het meest recente voorbeeld in deze lange geschiedenis van technologische innovatie, en net als de eerdergenoemde voorbeelden brengt digitalisering uitdagingen en kansen met zich mee. In dit proefschrift onderzoek ik een bepaald onderdeel van digitale innovatie: de kluseconomie platformen, vanaf nu aangehaald met de Engelse term "Gig economy". De gig economy is een term die gebruikt wordt om te verwijzen naar diensten die door freelancers worden uitgevoerd op eenmalige basis. Hoewel de gig economy al bestond vóór de introductie van digitale platformen , is de gig economy pas na de uitvinding van die platformen overgegaan van lokale, relatief kleine markten, naar een globale digitale arbeidsmarkt. Een van de belangrijkste kenmerken van de gig economy is dat de werkers werken via een freelancestructuur, ongeacht de feitelijke arbeidsrelatie tijdens hun werk. Hierom worden er serieuze kanttekeningen geplaatst bij geldigheid van dit arbeidsmodel. Hier gaat het vooral over de rol van het platform, de gevolgen voor het socialezekerheidsstelsel en het arbeidsrecht, en de gevolgen voor de positie van dienstcontracten op lange termijn. Sommige maatschappelijke actoren (met name de vakbonden) hebben zich fel verzet tegen de brede toepassing van het freelancemodel in de gig economy, omdat ze bang zijn voor de ondermijning van verdiende arbeidsrechten. Echter is een meer centrale vraag of samenlevingen, al dan niet collectief, controle kunnen uitoefenen op digitale innovaties, of dat deze een volledig nieuwe ruimte vormen waarin bestaande regels niet kunnen worden gehandhaafd.

Het doel van mijn proefschrift is om dieper op deze vraag in te gaan, en te onderzoeken hoe gig economy platformen interacteren met bestaande instituties en regelgeving. Daarnaast bekijk ik hoe (en welke) instituties deze platformen in de loop der tijd vormgeven. Mijn analyse richt zich op de on-site gig economy, dat wil zeggen, de platformen die diensten aanbieden in die op een fysieke locatie moeten uitgevoerd worden, zoals maaltijdbezorging. Dit staat tegenover de online gig economy, waar diensten digitaal aangeboden worden zoals programmeren en vertalen.

De bevindingen in dit proefschrift geven een interessant beeld. Ten eerste laten de bevindingen zien dat instituties het vermogen hebben om de werking en ontwikkeling van gig economy platformen te beïnvloeden, zowel door te stimuleren als door af te remmen. Bij het analyseren van de eerste levensfases van gig platformen, namelijk de oprichting en internationalisering (het aantal landen waar het platform actief is) is te zien dat het bestaan van een ontwikkeld risicokapitaalsysteem in een land leidt tot de oprichting van meer platforms

daar. Daarnaast heeft het bestaan van instituties die innovatie en arbeidsmarkt flexibiliteit stimuleren een positief effect op de internationalisering. Toch verloopt dit internationaliseringsproces niet altijd soepel, omdat platforms in elk nieuw land waar ze actief worden, te maken krijgen met verschillende nationale instituties. Zoals te zien is in mijn onderzoek naar internationalisering van Uber, stuit dit proces vaak op aanzienlijke weerstand van nationale instituties zoals regeringen, lokale gemeenteraden en de politie. De hoeveelheid negatieve reacties waren groter in landen met een goed functionerend rechtssysteem, omdat de activiteiten van Uber eerder als "wetsovertreding" werden gezien en er meer beschikbare juridische middelen waren om tegen Uber in te zetten.

Tot slot onderzocht ik hoe gig platformen reageren op de eerdergenoemde institutionele druk. Aan de hand van een casestudy van schoonmaakplatform Helpling, stel ik vast dat platformen wanneer ze geconfronteerd worden met strengere arbeidsinstituties en sectorale regelgeving, hun bedrijfsmodel zo aanpassen dat ze hun kernfuncties kunnen behouden. In deze casestudy koos het platform ervoor hun schoonmakers als zzp'ers te behouden door de controle over de manier waarop zij hun werk uitvoerden te verminderen. Het institutioneel proces was gedeeltelijk wederzijds, aangezien de institutionele actoren ook leerden en zich aanpasten aan de uitdagingen van het platform.

Tenslotte is te zien dat ondanks de hype rond de hoe uniek en vernieuwend gig platformen zijn, hun traject kan worden gereguleerd door collectieve maatschappelijke instituties. Innovatie maakt sociale rechten niet overbodig en kunnen worden verdedigd, zolang er voldoende politieke wil is om ze te behouden.

Περίληψη

Η ιστορία της ανθρωπότητας χαρακτηρίζεται από τεχνολογικές εξελίξεις, κάθε μία από τις οποίες οδήγησε σε βαθιές κοινωνικές μεταλλάξεις. Από την ανακάλυψη των μετάλλων μέχρι την εφεύρεση του κινητήρα εσωτερικής καύσης και την ανάπτυξη της βιομηχανίας, οι τεχνολογικές εξελίξεις είχαν ως αποτέλεσμα βαθιές αλλαγές και προσαρμογές στην οικονομία, την κοινωνία και την πολιτική. Η ψηφιοποίηση αποτελεί απλώς το πιο πρόσφατο παράδειγμα σε αυτή τη μακρά ιστορία τεχνολογικής καινοτομίας, και όπως και όλες οι άλλες πριν από αυτή, συνοδεύεται από τις δικές της προκλήσεις και ευκαιρίες.

Στην παρούσα διατριβή εξετάζω μια συγκεκριμένη υποενότητα της ψηφιακής καινοτομίας: τις πλατφόρμες gig economy. Ο όρος gig economy χρησιμοποιείται για να αναφερθεί σε όλες εκείνες τις θέσεις εργασίας οι οποίες αφορούν αυτοαπασχολούμενους εργάτες, οι οποίοι εργάζονται στην βάση ενός διακριτού, παραδοτέου έργου. Αν αυτός ο όρος χρησιμοποιούνταν και πριν από την ανάπτυξη των ψηφιακών πλατφορμών, μόνο μετά την πρώτη εφεύρεση των εν λόγω πλατφορμών, η gig economy μετατράπηκε από μια σχετικά μικρή και τοπική αγορά, σε μια τεράστια, ακόμη και παγκόσμια ψηφιακή αγορά εργασίας. Ένα από τα κύρια χαρακτηριστικά της gig economy είναι ότι οι εργαζόμενοι σε αυτήν απασχολούνται ως ελεύθεροι επαγγελματίες, ανεξάρτητα από τις πραγματικές συνθήκες της εργασίες τους. Αυτή η πρακτική εγείρει σοβαρά ερωτήματα σχετικά με την νομιμότητα αυτού του μοντέλου απασχόλησης και ευρύτερα τον ρόλο της πλατφόρμας, τις συνέπειες στα συστήματα κοινωνικής ασφάλισης και το εργατικό δίκαιο, καθώς και τις μακροπρόθεσμες επιπτώσεις του στην ίδια τη φύση της απασχόλησης. Ορισμένοι κοινωνικοί φορείς (ιδίως τα συνδικάτα) έχουν αντιταχθεί σθεναρά στην ευρεία εφαρμογή αυτού του μοντέλου, φοβούμενοι την υπονόμευση των δικαιωμάτων των εργαζομένων. Στον πυρήνα του όμως, βρίσκεται το ερώτημα εάν και κατά πόσο οι κοινωνίες μπορούν να ασκούν κοινωνικό έλεγχο πάνω στις ψηφιακές καινοτομίες, ή αν αυτές αποτελούν έναν εντελώς νέο πεδίο όπου οι υπάρχοντες κανόνες δεν μπορούν να εφαρμοστούν.

Στόχος της διατριβής μου είναι να εμβαθύνω σε αυτό το ερώτημα και να διερευνήσω τον τρόπο με τον οποίο οι πλατφόρμες gig economy αλληλεπιδρούν με τους καθιερωμένους θεσμούς και κανονισμούς, και ιδίως πώς (και ποιοι) Θεσμοί διαμορφώνουν αυτές τις πλατφόρμες με την πάροδο του χρόνου. Η ανάλυσή μου περιορίζεται στην on-site gig economy, δηλαδή στις πλατφόρμες που προσφέρουν υπηρεσίες μόνο στον φυσικό χώρο, σε αντίθεση με εκείνες που προσφέρουν υπηρεσίες on-line (διαδικτυακά).

Τα αποτελέσματα δίνουν μια ενδιαφέρουσα εικόνα. Πρώτον, τα ευρήματα μου δείχνουν ότι οι Θεσμοί έχουν τη δυνατότητα να επηρεάσουν τη λειτουργία και την εξέλιξη των πλατφορμών της gig economy, τόσο με θετικό όσο και με αρνητικό τρόπο. Η ανάλυσή μου ξεκινά από τα πρώτα στάδια της «ζωής» της πλατφόρμας, τα οποία είναι είναι η δημιουργία και η διεθνοποίησή της (ο αριθμός των χωρών στις οποίες εισέρχεται και δραστηριοποιείται). Τα αποτελέσματα δείχνουν ότι η ύπαρξη ενός ανεπτυγμένο σύστημα Venture Capital σε μία χώρα θα έχει σαν αποτέλεσμα την δημιουργία περισσότερων πλατφορμών εκεί. Επίσης η ύπαρξη θεσμών που προωθούν την Καινοτομία και την Εργασιακή Ευελιξία θα έχει θετική επίδραση στη διεθνοποίηση των πλατφορμών. Ωστόσο, αυτή η διαδικασία διεθνοποίησης δεν εξελίσσεται πάντα ομαλά, καθώς οι πλατφόρμες αλληλεπιδρούν με διαφορετικούς εθνικούς θεσμούς σε κάθε νέα χώρα στην οποία εισέρχονται. Όπως διαπίστωσα

κατά την εξέταση της επέκτασης της Uber σε όλο τον κόσμο, αυτή συναντούσε συχνά σημαντική αντίσταση από εθνικούς θεσμούς, όπως οι κυβερνήσεις, τα τοπικά συμβούλια, η αστυνομία κ.λπ. Οι αρνητικές αντιδράσεις ήταν περισσότερες σε χώρες με ισχυρό Κράτος Δικαίου, καθώς εκεί οι δραστηριότητες της Uber ήταν πιο πιθανό να θεωρηθούν ως «παραβατικές» και καθώς επίσης διαθέτουν περισσότερα νομικά μέσα τα οποία μπορούν να χρησιμοποιηθούν εναντίον της.

Τέλος, διερευνώ τον τρόπο με τον οποίο οι πλατφόρμες αντιδρούν στην προαναφερθείσα θεσμική πίεση. Χρησιμοποιώντας ως case study μια μεγάλη πλατφόρμα καθαρισμού, παρατηρώ ότι ερχόμενες αντιμέτωπες με αυστηρότερους ρυθμιστικούς θεσμούς της αγοράς εργασίας και κλαδικές ρυθμίσεις, οι πλατφόρμες θα αλλάξουν το επιχειρηματικό τους μοντέλο με τρόπο που τους επιτρέπει να διατηρήσουν τις βασικές τους λειτουργίες. Σε αυτό το case study, οι πλατφόρμες επέλεξαν να διατηρήσουν τους καθαριστές τους ως αυτοαπασχολούμενους μειώνοντας τον έλεγχό που ασκούσαν πάνω στον τρόπο εκτέλεσης της εργασίας τους. Η διαδικασία αυτή ήταν εν μέρει αμοιβαία, καθώς και οι ίδιοι οι Θεσμοί αναγκάστηκαν να προσαρμοστούν στις προκλήσεις που έθεταν οι εν λόγω πλατφόρμες.

Συμπερασματικά, βλέπουμε ότι παρά τον θόρυβο γύρω από την καινοτομία των πλατφορμών gig economy, η πορεία τους μπορεί να ρυθμιστεί από συλλογικούς κοινωνικούς Θεσμούς. Η τεχνολογική καινοτομία δεν καταργεί τα κοινωνικά δικαιώματα, όσο υπάρχει επαρκής πολιτική βούληση για τη διατήρησή τους.

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Acknowledgements

During this long academic journey I was fortunate to be accompanied by numerous people who played a unique part as friends, mentors, colleagues. Before everyone else I would like to thank my family, my parents, my brother and my sister for always being there for me.

I would to acknowledge my two supervisor, Koen Frenken and Andrea Herrmann. Firstly, I would like to thank Andrea, for trusting me with her project and selecting me as one of the PhDs to carry it through. Secondly, Koen, who stepped in a critical moment and guided me to the end, while encouraging me to pursue novel research avenues that I had not foreseen. Andrea, Koen, thank you both wholeheartedly for your mentorship and trust during all this time, both academically and personally.

There is no other person that was with me for every step of this journey than my dear colleague, friend and partner-in-crime Jaap van Slageren. I loved our endless political discussions, which somehow always started from opposite stances only to gradually converge into an agreement. He was a constant source of support, encouragement and contrarian arguments during my PhD, all of which I benefited greatly from. My dear Jaap, thank you for everything, and looking forward to see you growing into a great academic in the future.

Those last 4 years, I had the great luck to meet so many amazing people in the Copernicus Institute. All of them became dear to me, and I could not but mention their names here. Firstly, all the friends in our little 7.30 corner, Jip, Timon, Kieran, Kaustubh, Martin, Nico, Freek, Lisette, who were part of the first group of friends in those early days. From the beginning of my time there I was glad to meet great people such as Mary, Odysseas, Simona, Jarno, Dorith, Laura P., Laura van O. Iris, Brit, Sanne who played a great role in making my time in Copernicus as gezellig as possible. Special thanks to Matthijs P. for his assistance in the paper that forms the 4th Chapter of this Thesis.

I would like to thank my amazing housemates who made my stay in our little Furkafarm unforgettable. Adriaan, Gui, Jelle, Annita, thank you all for your friendship all those years. Special mention to Zana and Vilma for being the most adorably annoying dogs ever.

Last but not least, I would also like to mention my friends whose presence in the Netherlands marked my life. Kostas and Maria, Rashad, Maria and Christoforos, Dimitris and Ariadne, Marlene, thank you for everything. Special thanks to Sven, a dear friend and my paranymph.