

The Shifting Boundaries of Capitalism and the Conflict of Surplus Value Appropriation within the Gig Economy.

Abstract

This chapter addresses the two important themes that we believe characterise how the platform-based gig economy operates. The first of the two themes explores the shifting boundaries of the triangular business model and its place within the wider, evolving capitalist structure. The triangular business model is the foundation of the platform-based gig economy and consists of the digital platform, the producer/worker and the end consumer. The digital platform acts as the intermediary and provides a market for exchange of goods and services between the workers and the end consumers. The fluidity of the triangular relationship has left the platform-based gig economy beyond the reach of the traditional neoliberal regulatory system leading to the blurring of employee and employer relations. The second theme is based on the exploration and application of the Marxist concept of surplus value creation and its appropriation within the gig structure. Here we seek to show the exploitation of the worker as a participant in the triangular business model. Given that the worker bears the majority of the entrepreneurial risk and provides capital they ought to receive a proportion of the surplus value created from the transaction. We have established the increasing dominance of platforms within the triangular business model and the enhanced scope for exploitation of workers in form of poor remuneration standards due to employee status ambiguity and the appropriation of a disproportionate amount of surplus value flowing to the platform owners.

Key words

Gig economy, surplus value, Marxism, triangular business model, exploitation of workers

Introduction

We are in the midst of a seismic reorganisation of the global economy, characterised by the emergence of a ‘digital platform economy’ which has consequently changed the way we work, socialise and create value in the economy. This digitally based new economic system that operates through a myriad of platform-based markets and complex ecosystems, has radically transformed the way economic agents interact with one another. Digital platform-based businesses were created as a strategy response to intense price competition and have completely changed the way we consume goods and services. The platforms allow the realisation of commercial value from under-utilised assets and enables entrepreneurs to work on flexible schedules thus attracting users and generating (rental) value from the emerging ecosystem. Much of the discussion and debate around the gig economy focuses on its prolific growth & dominance and the dramatic consequences it has created for society, markets, businesses, consumers, and workers.

The aim of this chapter is to examine the economic theoretical foundations of the gig economy, specifically exploring the shifting boundaries of modern-day capitalism and the place of the gig economy within it. Another key aim is also to explore the way different forms of value are created and appropriated within the gig economy and to analyse the rising conflict associated with the distribution of value and the notion of exploitation. To do this we start by defining the characteristics of the gig economy and go on to discuss controversies surrounding the gig economy and the rising conflict with the private capitalism and market structures. These issues then considered within the scope and scale of the gig economy both globally and within the UK. The theoretical foundations of the gig economy illustrating historical concepts of capitalism and outlining the progression to modern structures of neo-liberal and cooperative capitalism which operate as rules-based systems are then considered in the context of the rise of gig economy. In concluding these debates we explore whether the Marxist definition of surplus value creation is applicable to the gig economy and consider whether its distribution is equitable. The concepts of value proposition and the scope for exploitation to take place with respect to the appropriation of value created is then explored. From here we draw conclusions and policy recommendations for fairer distribution of value in the gig economy.

Definition and Controversies

The emergence of digital platforms has caused a major disruption to existing market structures and organisations within them by resetting and transforming the way value is created and captured, playing regulatory arbitrage, repackaging work and repositioning power in the economic system (Baltimore et.al 2016). Value is created by the digital ecosystem and the platforms set the terms by which consumers and producers can participate. All digital platforms act as mediators or intermediaries connecting participants who then engage in some form of market exchange of goods and services (in cases they can add value too). The advances in technology of networking has enabled these platforms to develop far-reaching marketplaces and thereby attain leading positions in their respective markets by achieving strong economies of scale and scope. There are two broad types of digital platforms – asset based or capital-based platforms and on-demand labour based ones (Farrell & Greig, 2016). It is not the case that all gig economy work takes place with a platform structure. A great deal of the present literature focuses upon the platform economy as we will in this chapter as well. In platform structures the case for exploitation and shifting boundaries is most apparent. Furthermore a lot of research has focused upon Uber, which is a platform based company, due to the availability of data released by Uber which has allowed an understanding of the micro-level aspect of a platform case (Hall & Krueger, 2018).

There are several key features that characterise a gig economy (Stewart & Stanford, 2017) namely, work is performed on an on-demand basis and jobs are compensated on a task-by-task basis; the gig worker provides some or all of the capital equipment required for the job; jobs are organised around some form of digital mediation; and finally, that there is triangular relationship between the producer, final consumer and the intermediary (platform owner). In addition to these core characteristics (Bajwa, Knorr, Di Ruggiero, Gastaldo, & Zendel, 2018) suggest additional features that are based on workers' experience in the gig economy, these

include the blurring of the boundaries between personal and professional time including full time and casual work; the short-term relationship between the workers and clients; the classification of workers as independent contractors; the difference in skill levels employed in the gig economy; the ‘non-employer’ firm status of businesses operating in this system; and finally the fact that the platform businesses are the main beneficiaries of the gig economy. These characteristics are consistent with the Dynamic Structural Model outlined in the Introductory chapter one of this volume

Some of these core characteristics of the gig economy are by no means new phenomena or specific to this ‘digital platform economy’. The casualization of work and income have existed historically in many occupations within the capitalist system dating back to the practices of the European mercantilists (Finkin, 2016; Stewart & Stanford, 2017; Valenduc & Vendramin, 2016). Apart from the rapid growth and integration of technological innovation the business model used in the gig-economy is very similar to existing and historical economic systems and hence the organisation of gig work and the associated regulatory challenges are by no means novel, however it presents distinct challenges.

In more recent years many scholars (Bonicu, 2016, van Doorn, 2017) attribute the resurgence of the gig business model as an aftermath of the 2008 financial crisis. The consequent global recession and austerity measures forced many of the recently-laid-off, unemployed and underemployed people to look for new employment opportunities either on a project by project basis or by mobilising underutilised resources and assets owned, as an alternative source of income. These labour and capital platforms have led to the digitization of trust and the emergence of a decentralised peer-to-peer network (Sundararajan, 2016). The main difference between gig business model and similar historical models lies in the technological innovations and positive re-branding of ‘gig work’ within the neo-liberal framework. Historically capitalism has moved through phases of formal collectivisation in

market structure and organisation of labour, such as the end of the putting out system under which workers produced goods for an employer whilst in their own home. This was succeeded by collectivisation in factories as technology developed to mechanise production in many industries following the first industrial revolution. Adverse economic conditions in the 1930's caused some deformatisation to occur as an effort to minimise labour costs (usually in the form of shorter hours employment), although at the turn of the 20th century piece-work was becoming less common in some professions. As technology develops it is reasonable to assume working practices will adapt.

Throughout history, working practices have evolved and in some respects the new triangular structure is a return to the 'putting out' system where work was sub-contracted and completed either in their own homes or in workshops with multiple craftsmen. This system is often considered as a form of Proto-Industrialization in which certain industries such as cotton spinning and clock making were collectivised in new factories due to the advances of the industrial revolutions. With the advent of Taylorist working practices focussing on economic efficiency along with Fordism which oversaw the mechanisation, mass production, mass consumption and the introduction of a 'living wage' (Gullickson, 1983) there were major disruptions to the traditional working practices. Increasing market pressure has eroded the Fordist wage and globalisation has collectivized physical industry further and since 1945 driven an increasingly consumer society.

Complication arises in the platform structure from the triangular relationship between the intermediary, the producer/worker and the end user. The triangular relationship as discussed by Stewart and Stanford (2017), is the interaction between the producer/worker and the end-consumer enabling them to exchange goods and services through a process that is facilitated by a third party who is the digital intermediary. The contractual arrangement between the

intermediary and the worker allows the worker to use the platform to reach the end customer and the intermediary firm the right set the rules of worker participation including terminating their use of platform. Interestingly the burden of risk falls on the worker who bears the brunt of the precarious nature of work, occupational vulnerabilities and platform-based vulnerabilities. Some platforms retain control of working volume and working conditions. In addition these companies simultaneously distance themselves from responsibilities with respect to employees rights and accountability for the services provided by their ‘sellers’ (Healy, Nicholson, & Pekarek, 2017).

The contract between the intermediary and the customer is also skewed and limits the obligations and responsibilities of the intermediary. In this triangulate structure the firm (platform) ceases to be responsible for all aspects of the customer experience and this is captured in the labour power provided by the worker who in some platform structures are performance managed (eg Uber Ratings) and in cases the restrictions in worker activity are extreme as shown in (Wilson, 2018)). The platform businesses have the advantage of differentiated information sets between each of the three parties and can proactively set the terms for the end users and producers to interact. As a result the relationship between the gig worker and the end-user is more unclear and depends to some extent on the rules set by the intermediary. This also means that in most cases there is no binding contract between the producer and the end-consumer as it is mostly dictated by the intermediary.

The ‘Gig Economy’ has proven to be a source of controversy in context to its relationship with the traditional ‘9 to 5’ economy which exists alongside it. Here the triangular relationship within the gig structure and the unequal application of regulation has created asymmetries in pay & remuneration. Although the triangular relationship also has historical precedence it is the main source of controversy in the current context. This structure allows the platform owner to distance itself from the worker making the relationship between the two

unclear. This muddies the traditional employer-employee relationship by allowing the platform owners to classify workers as independent contractors or self-employed while subjecting them to ambiguous rules and criteria for success. So far platforms have been able to do so by disaggregating jobs into micro-tasks which are completed on an 'on demand' basis and by paying workers on a task by task basis. This enables the platforms to distance themselves from the workers and to disaggregate the workforce (Healy et al., 2017) . The platform economy is different from other forms of contract work as it is on-line and crosses international borders. Thus, the platform businesses are able to absolve themselves from any of the responsibilities they have towards the work force they use. They do not provide any benefits to their workers including pensions, health insurance, sick pay severance etc. They are not accountable for their workers' protection in terms of minimum wage, work-place safety or antidiscrimination laws. The burden of risk is heavily placed on the worker and therefore they become more vulnerable to capital losses. The disaggregation of jobs implies that the workers have no access to career development skills training which have an overall negative impact of the workforce. Under UK law gig workers can be classified as self-employed, a limb worker (a dependent contractor), an agency worker or an employee (Balaram, Warden, & Wallace-Stephens, 2017). The misclassification of gig workers as independent workers makes it impossible for governments, unions and policy makers to regulate the gig economy. Platform workers are the most interesting case as their employment status is often seen as the most unclear of all workers in the gig economy, however this is part of a growing trend in which working practices have become more flexible (Wilson, 2018), with the aim of reducing labour costs for the employer and providing a greater value proposition to the consumer.

Under the concept of rules-based capitalism it is important that regulation applies equally to all participants in a market, this allows regulators to create safeguards (for instance safety standards) but also encourage competition which is one of the core elements of an

efficient market. In the gig economy however similar regulations may not apply, some new market entrants have been able to classify their platforms as data companies despite their client value proposition being in a different sector, thereby bypassing regulations. The most notable example here is platforms such as Uber and Lyft. These platforms initially paid little regard to safety as they had exogenised this responsibility onto individual providers (Bond, 2018). As brand image, which concerns the platform, is affected by issues relating to safety, much more effort has been made to exert control on providers to internalise the issue. For instance Uber is now designing safety features into its application and is enforcing background checks upon drivers (Uber, 2019); issues have occurred in cases however; one case of note was the discovery of an accused Somali war criminal driving for both Uber and Lyft in the United States for 18 months having passed all background checks (Bronstein, Devine and Griffin, 2019).

Conflict of motives arises when we consider the reasons why people work within the gig economy. If efforts were made to ensure that employee status was applied and full workers' rights were provided this can reduce flexibility within the employment. Although this would benefit the 30% of workers who are necessitated to work in non-conventional employment within the gig it would be to the detriment of the 70% who choose the flexibility of this employment when considering to work in the gig economy (Manyika et al., 2016). If regulations were put in place to ensure a minimum wage is provided this may subsequently lead to less choice in terms of working hours and the frequency of work. Sherk (2016) explains that this would hinder the ability of platform firms to serve those who are not served well by conventional firms. The example is Uber's ability to better serve New York suburbs compared to Medallion taxis who face a greater incentive to make many short trips per hour in downtown New York (this logic can apply to many cases). As a result the policy implications are unclear as flexibility is traded off against workers' rights which once again elucidates the inability of current employment laws to classify platform workers and meet the needs of those who value

flexible employment and those who ought to be reviving employee protection from exploitation.

The City of New York has afforded minimum wage coverage to platform-based cab drivers on platforms such as Uber and Lyft. This has created an elevation in prices (borne by the consumer) which could curtail some demand but also instigate additional control from the platform. Such controls may include changes to the remuneration structure as bonus payments become unavailable (to the detriment of some casual drivers) as well as the migration of some drivers with lower ratings to inferior sub-platforms (Eidelson, 2019). This has been very much a local imposition as by contrast the Fair Work Ombudsman in Australia has rules that Uber drivers do not have employee status and are not eligible for minimum wage protection (Smyth, 2019).

Sherk (2016) argues that the gross salary for gig workers should reflect their entitlement to benefits such as pension schemes and health insurance as they are not afforded these rights by their employers. However, it is likely the case that this theory does not hold true and the conditions of a platform worker are not similar to those of a truly self-employed person. Furthermore there is often little scope for promotion or advancement from basic pay, even if offered at a living wage (Taylor, Marsh, Nicol, & Broadbent, 2017, p. 110). Evidence gathered by Taylor (2017) suggests that temporary workers who are part of the gig labour force can be subject to 'in-work poverty' and extreme uncertainty surrounding flexible contracts such as zero-hours contracts.

Scope of the Gig Economy

Measuring the size of the workforce in the gig economy is challenging. As much of the work done in the gig economy is invisible and as many gig workers do not report their work it

is hard to find accurate records. Most empirical work in this area has been carried out using survey data and organisations that have attempted to measure the size of the gig economy have looked at various secondary sources such as platform usage, income tax records etc. However, the main obstacle seems to be stemming from the definitional issues around the gig sector. Existing academic and grey literature around the gig economy all seem to use their own nuanced characteristics when defining the gig-economy. There is a lack of standardisation in measuring the size of gig sector as a result of lack of accurate information due to nature of gig work, which is often unregulated, unprotected and under-reported.

In spite these challenges, some recent attempts have begun to demonstrate the extent of the digital labour force participation on the global arena. The report by McKinsey Global Institute, October 2016, suggests that 20% to 30% of the US and EU15 working age population can be classified as independent workers, that is around 162 million people. However, the definition used by McKinsey Report is broader than what we use for this particular chapter. Their definition includes three characteristics namely that work is a short-term duration, workers are paid by task and that workers have a high degree of control and autonomy, it does not specify the use of a digital platform. McKinsey report goes on to suggest that, of this total nearly 44% of these independent workers depend on gig work as their primary source of income and the remaining treat it as supplemental income. However, it is quite interesting to see that only 30% of the independent workers are forced to work in the gig economy out of necessity rather than out of choice. Another interesting finding of the report is that those who do independent work by choice report greater satisfaction with their work lives than those who do it out of necessity, and this holds across countries, age groups, income and education. The McKinsey Report elucidates that of the total number of independent workers only 15% use digital platforms. Thus, for the purposes of this article, which includes digital platforms as a defining feature of gig work an estimated 25 million people in the US and EU-15 work in the

gig economy, taking into account the total figure from the McKinsey report. Looking exclusively at online outsourcing, the World Bank finds that in 2013 there were 48 million registered workers in this area. Huws, Spencer, & Joyce (2016) find that 11% of surveyed adults in the UK earned money through the gig economy. A comprehensive study carried out by the RSA (Royal Society for the encouragement of Arts, Manufacturing and Commerce) in conjunction with MANGOPAY (online payment technology firm) published in April 2017, provides a snapshot of the scale and impact of the gig economy in the UK. According to the RSA report an estimated 1.1 million people in Britain work in the gig economy out of which 27% are based in London. The definition of gig work that the RSA uses is in line with the characteristics featured in this article. The report finds that 59% of all gig work are in professional, creative or administrative services, 33% in skilled manual or personal services and the remaining 16% is made up of driving and delivery services. In terms of age and gender profile of workers in the gig economy 61% are male and 52% of all gig workers fall in the age bracket between 31 and 54. It is interesting to see that 44% of gig workers have graduate level degrees. Data gathered on the frequency of gig work shows that 50% of gig workers work less than monthly and 80% work less than 16 hours per week. The general trends in the gig economy and the increase in the size and scope of self-employed workers in the UK since 2008 demonstrate that 'freedom' and 'flexibility' of work seem to be the main driving force behind these shifting trends. However, it cannot be overlooked that the job losses and lack of opportunities in the traditional employment sector that were a result of the 2008 global financial crisis and the austerity policies in the UK have forced many to seek employment in the gig economy. The rise in employment in the UK has mainly been in the self-employment sector, which has seen a 44% rise since 2008. This trend is mirrored in the gig economy.

Economic Theoretical Underpinning of the Gig Economy

There are several neo-liberal arguments supporting the business model of the shared economy and the benefits that it brings to society in general. The benefits of the gig economy are based on the foundations of neo-liberal competitive market efficiency. On the demand side, the gig economy provides goods and services at a lower price than those provided in traditional markets. Consumers are generally motivated to use these platform-based companies because of price savings. Another reason for the success sharing economy is greater product and service variety. The large number of sellers within the market offers a variety of products and services to meet the diverse needs of the customers. Finally, the success of the gig economy can be attributed to the speed with which it can provide its goods and services and the level of customisation of products and services as compared to their counterparts in the traditional economy. On the supply side the sharing of resources and key business functions via the platform enables individual providers to lower their transaction costs. Without the sharing of these resources, information and customers many start-ups would not be viable and would fold-up. Another benefit of the gig sector is the potential for achieving democratic participation and redistribution. This is achieved by bringing in providers that otherwise would be marginalised by traditional market systems.

The article by Bonciu et.al. (2016) presents an analytical approach to the fundamental premise of the sharing economy arguing the positive impact it has on the economy, society and environment. They argue that sustainable growth can be better achieved through sharing assets rather than through ownership. Mainstream neo-liberal literature on sustainable growth refers to the efficient and cleaner ways of using resources through technological innovation to deal with the challenges of population growth, demographic changes, climate change and ever-dwindling resources. The use of digital platforms caters to this message as an economic activity. The emergence of the platform economy has occurred due to the major geopolitical

shifts that the international arena has gone through since the end of the Second World War (Bonciu et.al. 2016). The end of the Second World War gave rise to a bipolar economic system dominated by the two main superpowers, the United States and the Soviet Union. With the fall of the Soviet Union in the late 1980s the United States became the single 'unipolar' superpower. This unipolar economic structure was soon changed with the advent of China, India, Brazil and the Russian Federation on to the global economic and political arena giving rise to a multipolar world economic system (O'Sullivan et. al 2015). This multipolar system was characterised by the interaction of the United States (leading power) with other regional powers such as China, European Union and the Russian Federation etc. Alongside the rise of the multipolar economic system, fuelled by the success and widespread adoption of globalisation and financialisation, the international arena also witnessed the rise of goliath multinational corporations that consequently became an integral part of the multipolar system. Within this framework as a result of the huge advances in information and communications technology, 'the individual' subsequently became the most elementary actor in the new world economy. In this system individuals can conduct economic activities at a local and global scale via digital platforms. This is usually done through a process in which production is divided into multiple projects or tasks that are performed by a multitude of individuals interconnected by digital platforms and wider network and ecosystems. The modern-day gig economy is a manifestation of the individual scale multi-polar system and neo-liberal supporters of this system would argue that it provides the most flexible and scalable form of economic activity and that it also has the potential to become a significant contributor to sustainable growth and development.

The gig economy is some ways is also the product of corporate financialisation. Post Second World War capitalism has witnessed an era in which although a large chunk profits generated by big companies went to their top CEOs, a considerable amount of profits was also

re-invested back into the company in the workforce, R&D and also in better prices for consumers. However, over the last few decades there has been a growing trend for non-financial organisations and public corporations to increase their profits through financial activity in the capital markets and then send these gains back to the shareholders rather than re-investing in the firm or its workers. This shift has been so dramatic that the ratio of financial profits out of overall corporate profits has increased significantly in U.S. corporations (Lazonick, 2017). As a consequence of this firms have stopped investing in stable and productive workforce leading to decline in productivity, wage stagnation and job losses. This structural shift away from 'productive' to financialised' short-term profit generation has led to cost cutting practices, the burden of which is mainly borne by the employees. In the gig economy this manifests itself in the predominance of 'on-demand' independent workers who do not have rights to any worker's benefits or legal rights. One can thus generally conclude that financialisation strengthened by regulatory and legislative changes have had a negative impact on wages and jobs driving many traditional employees into independent contractor roles under precarious working conditions.

Shifting Boundaries of Capitalism

Although the gig economy has become a powerful force of market participation it is fundamentally different to the orthodox model of capitalism. From a political economy perspective, it may be interesting to adopt the 'varieties of capitalism' approach in order to understand the institutional framework that underlies the gig economy. The great body of work done in the area of 'varieties of capitalism' explore the institutional variations in the comparative capitalism models based on the response to the economic problem of that particular period of time. The 'modernisation' perspective that emerges in the post-war decades focussed on the challenge of industries that were still using pre-war methods of production (Shonfield 1965). The advocates of this approach focussed on the institutional

structures that gave states the leverage over the private sector such as the planning systems, and public influence over the flow of funds in the financial system (Cohen 1977, Estrin & Holmes 1983, Zysman 1983, Cox 1986). During the 1970s the main issue that plagued the developed economies was inflation and the new approach of comparative capitalism that was then adopted was coined 'neo-corporatism' (Schmitter & Lehmbruch 1979, Goldthorpe 1984, Alvarez et al. 1991). This approach broadly focusses on the capacity of the state to negotiate with employers and trade unions on issues regarding wages, working conditions and social and economic policy. An alternate approach to neo-corporatism puts less emphasis on trade union movement and more on the organisation of business (Katzenstein 1985, Offe 1981) The 1980s and 1990s highlighted a new approach of comparative capitalism termed 'social systems of production'. This approach looks at how at firm behaviour in response to technological change. The importance of sectoral governance, national innovation systems and flexible production regimes all affect the reorganisation of production in response to technological change. This approach highlights the influence of a wider range of institutions and a more sociological view of business operations.

Hall and Soskice (2001) introduces the concept of 'strategic interactions' central to the behaviour of economic agents. Their approach to comparative capitalism is based on a game theoretical framework within which businesses interact with different institutions in the face of technological innovation and increased global competition. In order to generate maximum profits firms need to be able to exploit their core competencies and dynamic capabilities by interacting and establishing strategic relationships both internally and with external stakeholders. Coases' theorem highlights the impact of non-zero transaction costs implying that institutional arrangements and relationships are never perfect. Add to this the problem of asymmetric information giving rise to moral hazard, adverse selection and shirking the coordination of these strategic relationships is a vital component of the firm's success. Hall

and Soskice identify five spheres of strategic relationships namely - industrial relations, vocational training and education, corporate governance, inter-firm relations and employees. Based on fundamental premise of strategic relationships they identify two forms of capitalism – the Liberal Market Economy practiced mainly by the US, UK, Australia and New Zealand and the Coordinated Market Economy (which is rather more Ordo-Liberal in nature) is more common in Germany, Japan, Belgium and the Netherlands. Only very stringent neo-liberal and mercantilist thinkers argue against regulation in markets. The firms within a liberal market economy are characterised by arms's length exchange of goods and services in a competitive market structure and formal contracting. In this form of neo-liberal capitalism information is privately acquired by businesses, only a subset of which is publicly accessible. Market institutions provide highly effective means of coordinating and regulating the actions of the economic participants. The firms within a coordinated market structure depend heavily on the non-market relationships to coordinate their endeavours. These non-market modes of coordination generally demonstrate a more extensive relationship or incomplete contracting, network monitoring based on exchange of private information inside networks and more reliance and collaboration.

Some may argue (Dayal-Chand 2015) that the gig economy has qualitatively more in common with the coordinated market economy than the liberal market economy. To generalise, the critical difference between the two is the collective behaviour of businesses in achieving success. This collaborative and collective form of capitalism, according to some, has the potential to produce tremendous success and wealth if the market participants have the right legal and institutional infrastructure to support and regulate them. One of the overarching features of the gig economy, that is common with the coordinated market economy is the interaction of businesses with each other. Rather than competing against one another for resources such as employees, market information, product development and marketing and

finance, these resources are mostly shared by businesses. This is achieved through the digital or technological platform which allows them to share a common source of customers efficiently and cheaply. The contractual arrangements between the economic agents involved are not as formal as in the liberal market economy and are more akin to ‘contracts of adhesion’. Another significant feature of the gig economy as a coordinated market economy is the importance of institutional intermediaries that accomplish coordination amongst individual businesses. In the gig economy these intermediaries are typically the providers of the technological platforms. These platforms perform three functions: the sharing of critical business resources, the monitoring of network participants and the sanctioning of participants. Institutions within the coordinated market economy have accomplished collaborations in the sphere of labour relations, vocational training, corporate governance, inter-firm relations and employee relations. In the gig economy businesses share access to technology to find clients/end users and also to find also to establish ongoing supply of products and services, highlighting the extraordinary level to which sharing permeates interfirm relations. The stability of demand and supply is maintained for the entire network through the technological platform. Corporate governance within the gig economy may be defined as set of relations that support firms to access financing. The technological platforms are able to resource finance for businesses from both traditional investors and through crowd funding routes.

The conceptual failure of policy makers to understand the gig economy as different form of capitalism that does not neatly fit into the liberal market economy structure as it has been historically defined, is the primary cause of regulatory failure in the gig economy. Policy makers who are used to neoliberal competitive market structures and formal contracts thus find it difficult to decide whether a company like Uber should be classified as an employer of hundreds of drivers or a software developer who enters into formal licensing arrangement with a large number of independent businesses.

In this cooperative Germanic/Austrian structure of capitalism which is intertwined with Ordo-Liberal ideology the state plays the part of a regulator who can improve market outcomes however it is careful to preserve the competitive structure which is the most efficient determinate of supply and demand. This is exemplified by the thoughts of economists such as FA Hayek. A Keynesian extension would further link macroeconomic factors, principally price levels (Keynes, 2015), to the determination of supply and demand which introduces a temporal element in which previous supply becomes a determinant of future demand.

The concept of market structure is much more overt in the philosophy of Hayek, by examining Hayek's thoughts on recession and the organic nature of an economy it is possible to understand how the current gig economy has been a product of the capitalist system. The organic nature of the economy is best interpreted as 'being subject to Darwinian forces' in which firms respond to recession and only those capable of innovating (including reducing costs) survive into the next growth period. Where a firm reduces costs and is able to reduce the market price it should emerge into the following growth period.

This explains the rise of the gig economy as a means of reducing transaction costs, reducing labour costs and to a degree serving as a vector for outsourcing. Collectivisation of work replaced the putting-out system as economies of scale developed and mechanisation changed the market structure toward a formal and rigid structure with clear boundaries between capitalists and workers which is written about by Karl Marx when he illustrates class conflict. The current structure is less class based and likely much more flexible than put-out work however this flexibility and the unclear relationships combines with unequal regulatory treatment have created scope for conflict as the boundaries of working structures have shifted into uncharted waters.

Ultimately we can conclude that the gig economy is the result of the following factors that, historically, acted, unintentionally, in coordination the a) the collapse of Keynesianism

and Fordism b) the collapse of the Bretton Woods system c) the rise of neo-ordo economics as a viable alternative d) perpetual technological innovation and advancements e) the end of collective bargaining and the fragmentation of the labour force.

Analysis of Surplus Value in the gig economy

Marx is strict in his definitions of value, this stems from the concept of money being a means of purchasing as a measure of capital, Marx takes this from Ricardo who attributes no profit to capital in the form of money (Marx, Fowkes, & Fernbach, 1990, Chapter 6). Increases in value are therefore occur between the circulation of capital and the transformative processes that increases the use-value. In the process of human transformation during circulation we observe the creation and capture of surplus value.

According to Marx, under the capitalist mode of production the value of a commodity is derived from the socially necessary labour-time required to produce it (Capital Volume 1). In this production process, labour-power, which is dissociated from the objects and means of production, is purchased by the owner of the means of production, the capitalist, in an open market in exchange of a contract defining the terms and conditions of employment. The value of this specific commodity, of the labour-power, is measured by the 'new value added by the expenditure of labour to the existing value of capital (machinery, infrastructure etc.) used in the process of production. 'Socially necessary' labour refers to a given state of society where labour skills, labour intensity and conditions of production are averaged out. Socially necessary labour-time takes a money form by establishing a universal equivalent or benchmark, which Marx terms as money-commodity. Therefore, the value of any commodity can be expressed in money-value form by expressing it in terms of the universal equivalent. Following this line of enquiry Marx subsequently argues that 'price is the labour objectified in a commodity' (Capital Vol 1) and establishes that the price of a commodity may not always be equal its exact value but more likely to be proportional to its value.

In Marx's view labour-power is also a commodity whose value can be similarly defined as that of any other commodity, i.e. the socially necessary labour-time expended in it. Given that labour-power exists within workers, its production requires the worker to be able to subsist. According to Marx, means of subsistence should not only cover things that enable a worker to maintain his social reproduction, such as food, clothing, housing etc. but also costs incurred for acquiring new skills and training. Given that labour-power is a commodity that can be sold in the market for its exchange value, which in turn is spent on means of subsistence, it can be inferred that the value of labour-power tends to equal to value of the subsistence commodity bundle, although wages under certain regimes of industrial relations in the 20th century offered subsistence not just for the worker but also for his family (the Fordist wage), this was introduced along with Taylorist working practices that exploited labour power.

More generally the value or price of labour-power can be classified as the wage rate. Following on from the concept of labour-time, surplus value is the new value that is created by workers in excess of their own labour-cost (wage) which is appropriated by the capitalist as profit when the commodity is sold. In the capitalist mode of production workers produce value unequal to their wages because it incorporates surplus value (captured by the capitalist). Marx argues that it is worker's labour-power or his capacity to work that is the source of surplus value. A worker who is sufficiently productive can produce an output of much greater value than it costs to hire him, in other words the wage that the worker receives does not reflect the full value of what the worker produces. It is the capitalist that obtains the surplus value in the form of profit and the worker cannot capture this benefit as he/she has no legal claim to the means of production and has limited bargaining power over wages they can demand.

Surplus value averages out as average rate of profit for an enterprise and, together with other forms of capital sources capital accumulation in a capitalist society. This is the main driving force of capitalism. According to Marx the capitalist can extract more surplus value by

increasing the length of the working day or week (absolute surplus value) or by reducing wages, reducing the cost of subsistence commodity bundle or by increasing the productivity and intensity of labour through mechanisation (technological innovation). Marx highlights that the core conflict between the social classes is the constant quest to maximise the appropriation of surplus value versus the constant resistance to exploitation (workers versus capitalists).

Another important point that Marx highlights that no net additions to value can be created through acts of exchange, as value is created from labour-power in the material process of real commodity production. Linking concepts of surplus value creation and appropriation to the gig economy: The discussion below is premised on the fact the surplus value is extracted only in material production or provision of a service, which is then used as collateral by the service sector to build on platforms and structures of exchange for the benefit of the owners of those platforms. Surplus value is equal to the surplus value captured divided by initial capital stock (s/C), it is the capitalist's role to maximise surplus value capture, relying upon the fetish of law if necessary. Given the boundaries of working relationships as set out above it is possible to examine concept of value and surplus value through a critical analysis of shifting boundaries which characterise gig work. This is an issue of pay and remuneration which contributes to the precariousness of gig work as exemplified by the Dynamic Structural Model of the gig economy outlined in Chapter One, furthermore this is an elucidation of how exploitation takes place in this structure. We now outline how the Marxist analysis is applicable to the case of the Platform Economy.

A capitalist by virtue appropriates surplus value produced by workers. Normally a gig worker is paid per task and not 'by the hour' this leaves room for the platform to extract absolute surplus value. The amount of time it takes for a gig-worker to complete a task depends on their productive capacity. The higher productive capacity the greater the surplus value generated and appropriated by the platform. The gig worker does not benefit from this and has

very little bargaining power distribution of surplus value, especially since supply-side economic policy minimised the redistributive mechanisms of the welfare state.

The gig economy, based on the notion of flexible working hours, has allowed for the blurring of the concept of a 'traditional working day' creating an environment for a 24-hour working culture. This is another example of how surplus value is extracted by platforms by extending the working hours with little or no resistance from the gig workers.

Platforms maximise surplus value appropriation through relative surplus value extraction. In most cases gig workers are not paid the minimum wage, nor do they receive any pension or benefits related to their work, sick leave etc. This is another form of surplus value appropriation by the platform owner as they have been able to suppress wages and other forms of employment benefits.

Platform owners are able to extract and appropriate surplus value although the gig worker bears the burden of risk. Under a capitalist mode of production, the entrepreneur was rewarded for bearing the risk of starting a business venture. However, in a gig economy although the burden of risk is placed on the shoulders of the gig worker/producer it is the platform owner who reaps the benefit of extracting profits. In this case by providing the market for transaction and other business services that otherwise may not be available to the gig worker. It is therefore only fair that the platform owner gets a share of the profit. The case for exploitation is made in the light that the worker who holds some properties of a capitalist should capture a portion of the surplus value, this may or may not be the case and without microeconomic data this is a theoretical possibility for exploitation to take place as risk is exogenised by the platform.

Here the gig worker provides part or all of the capital required to complete a task and therefore should receive a proportion of the profits/surplus value created. In conventional Marxist analysis an individual is either a capitalist (the employer) or a worker (who sells his

labour power to a capitalist). This long-established convention does not hold under the triangular relationships of the platform economy. Here the worker/provider has characteristics of an employee but also of a capitalist as they bear entrepreneurial risk by providing their own capital and bearing responsibility for their own degree of Human Capital (Theory of Human Capital). As the role of the capitalist is not held by a single person it is necessary to consider that surplus value is not appropriated by a single person. In this case the motive of the platform to exploit the worker remains clear as the platform will capture some (although possibly not all) of the surplus value accruing from transformative activity, this is exemplified in some of the Taylorist and micro-managing practices which are seen within the platform economy in addition to the usual division of labour outlined by Adam Smith in the eighteenth century.

For example Uber drivers (workers) are a source of labour, they provide some of the capital of the business (they own/lease the cars) and provide labour however Uber too provides the platform for matching cars and passengers, this is a form of 'cognitive rent' (Fisher, 2015). As the driver is partly a capitalist and partly a worker the question reduces to how much of the surplus value is each party entitled to.

It is true that Marx argues no net additions to value can be created through acts of exchange, economic value being an attribute of labour-products (previous or newly created) only. Nevertheless, trading activity outside the sphere of production can obviously also yield a surplus value which represents a *transfer* of value from one person, country or institution to another. This is what happens in the gig economy. A very simple example would be if somebody sold a second-hand asset at a profit. This transaction is not recorded in gross product measures (after all, it isn't new production), nevertheless a surplus-value is obtained from it. Marx occasionally refers to this kind of profit as *profit upon alienation*.

Here it is possible to introduce the concept of domination in relationships between capitalists and workers. These relationships are characterised by forms of dominance, the

strictly dominating relationship that exists between capitalists and their workers is the crux of the critical view and is set out in the Marxist analysis of the origin and destination of the surplus value of production. The more curious relationship is that of the 'dominated dominator' whereby societal convention forces the capitalists to adhere to the profit maximising structure simply for the fact that all others in the market are doing so (Ypi, 2018). This reflects the competitive or monopolistically competitive market structure in which defection from profit maximisation causes a business to cease to be viable (as capitalists struggle to compete against each other). In this sense no particular capitalist is more immoral than another, however no capitalist is singly able to defect away from profit maximising as they are bound into the structure of capitalism.

Consider as an example in the UK market Deliveroo competes with Just Eat and Uber Eats in the platform-based food delivery market. These firms serve as an intermediary between restaurants and customers by providing their own drivers. In February 2019 Uber Eats reduced its fee from a maximum of 35% to a maximum of 30% of the meal value whilst also allowing restaurants to use the platform whilst providing their own delivery service (Ram & Bond, 2019).

This has allowed restaurants to reduce the commission paid via two routes and clearly depicts that a commission is charged to reflect the value added by the existence of the platform which markets restaurants and provides a mechanism for payment. With the presence of falling costs to the restaurants these firms may prove a viable way to outsource the delivery aspect of their business however said platforms add value in their own right and it is interesting that Uber is now promoting itself as an intermediary platform only to outsource the need for a restaurant to maintain an individual online presence. Here we see the existence of a dominated dominator (Ypi, 2018) as the growth of online consumption and web-based platforms necessitates take-away restaurants to adopt a platform (or multiple platforms) in order to innovate to the market

standard. Simultaneously the platforms must compete for custom and offer low value capture as they are beholden to the right of the restaurant to choose a provider. Of course, the platforms may still exert dominance and apply elements of control hence the platforms in the competitive case are dominated dominators; exactly like any conventional firm in a freely competitive market.

Conclusion

The Taylor Review of Modern Working Practices (2017) commissioned by the UK government looks at the fluidity of business models that necessitate the changes in employment practices. Subsequent grey literature published by the Work and Pensions and Business, Energy and Industrial Strategy Committees and other government departments have called for increased clarity on the employment status within the constantly shifting boundaries of different neo-liberal business models. The policy papers recognize that it is difficult for the average worker, with little or no knowledge of employment regulations, to understand what category status they fall into and the rights and benefits they are entitled to. Although the expansion of self-employed and business models built around flexible work on digital platforms promise positive opportunities for entrepreneurs, workers and consumers alike they could lead to potential exploitation due to the confusion around rights and entitlements of workers. There is evidence high-lighted in various legal cases and grey literature that acknowledges that exploitation is already occurring and therefore there is an urgent and overwhelming case for reform and legislation reflecting the case law. We have explored in this chapter that the exploitation within the gig economy not only takes the form of lost rights and entitlements but also arises from the appropriation and distribution of surplus value within the system. There are no clear boundaries in this business model about how much surplus value generated by the economic actions of each agent within this eco-system and even less clarity on how it should be distributed and a fair and non-exploitative way. The complex nature of the gig ecosystem and the symbiotic

relationship between each of the economic agents within make it virtually impossible to differentiate the contributions to surplus value made at each stage of the production process. However, what is currently evidently clear is that the digital platform provider is the dominant force in this ecosystem and that they have significant power over the other key players (worker and end-user). It is true that the platform, as the intermediary brings the different market forces into play, but it is also true that without the input from other economic agents the platform would be meaningless. In this context reform and clarity is essential to avoid exploitation within the system but we have also discussed in the chapter that regulation has a direct impact on flexibility and control within this business model. It is true that a flexible work force can provide benefits to workers consumers and platforms but that does not necessarily mean that the worker should bear all the risks of this flexibility. Policy recommendations therefore must reflect on the issues discussed in this chapter to provide a more robust foundation to the gig business model.

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