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Motivation in the Gig Economy: The Incentive Effect of Digital Platforms. A Literature Review

Motywacja w gospodarce gig. Rola platform cyfrowych w motywowaniu pracowników. Przegląd literatury

Keywords:

gig economy, gig work, motivation, external incentives, HRM functions, digital platform, algorithms, literature review

Abstract:

Purpose – to compile a list of external incentives that motivate gig workers, and identify incentives suitable for gig work.

Methods – an empirical literature review investigating external incentives and their effect on gig worker motivation on digital platforms.

Findings – despite the diversity among gig workers, well-known and recognised motivation concepts, and incentives remain applicable today. Digital platforms, designed to function as intermediaries between giggers and end-users, have assumed a significant part of the HRM role and transformed the paradigm of incentive in gig work. The application of external incentives in gig work depends on the digital platform's design, rules of operation, and functioning.

Originality – this study provides a list of external incentives motivating gig workers, based on an in-depth investigation of the applicability of both traditional and contemporary ideas and methods of motivation in the gig economy.

Research limitations – the study focuses on external incentives and is limited to online gig work.

Implications – the results indicate significant shifts in social and workplace relationships, suggesting that management in the gig economy, and more broadly, in the labour and education sectors, needs reforms.

Streszczenie: Głównym celem artykułu jest identyfikacja czynników motywujących pracowników zatrudnionych w gospodarce gig oraz stwierdzenie, czy motywatory stosowane w gospodarce tradycyjnej

Słowa kluczowe:

gig economy, motywacja, motywowanie, algorytmy, zarządzanie zasobami ludzkimi, platformy cyfrowe, przegląd literatury

JEL:

F66, J2, J5, L2, M21, O15

mają zastosowanie również w gospodarce cyfrowej. Koncentrujemy się na bodźcach zewnętrznych. Przeprowadzono przegląd literatury: zarówno tej dotyczącej teorii motywacji, jak i badań odnoszących się do motywowania w gospodarce cyfrowej. Badano, jakie motywatory są stosowane na platformach cyfrowych i jak one działają.

Wyniki wskazują, że mimo różnorodności charakterystycznej dla pracy typu gig, tradycyjne koncepcje motywowania i bodźców zewnętrznych mogą być stosowane także na platformach cyfrowych. Wykazano, że platformy cyfrowe są nie tylko pośrednikami między pracownikami gig a użytkownikami końcowymi, ale przejęły istotną część roli zarządzania zasobami ludzkimi, stając się aktywnym aktorem w gospodarce gig. Artykuł zawiera listę zewnętrznych bodźców, które motywują pracowników gig, która stanowi oryginalny wkład w literaturę na temat motywacji i motywowania w gospodarce cyfrowej.

Introduction

The gig economy has a far-reaching impact on the world's labour market due to its on-demand, platform-oriented, peer-to-peer, app-focused, collaborative, freelance, crowd-based, or digitised nature [Caza, 2020]. This phenomenon has attracted scholars investigating economic, social, and work relationship shifts [Schwab, 2016; Heaphy, Byron, Ballinger, Gittell, Leana, Sluss, 2018]. With the expanding number of gig workers, the prevalence of short-term positions, temporary contracts, heightened worker competitiveness, job insecurity, and the need to safeguard workers' rights have become increasingly salient issues in recent years. Schwab [2016] points out that we are presently in the midst of the fourth industrial revolution (4IR), which has fundamentally altered the nature of work. This reflects a new work ecosystem, an application economy based on the "human cloud" [Kaganer, Carmel, Hirschheim, Olsen, 2012], where independent contractors provide services rather than conventional employees, often utilizing digital platforms. Gig work varies depending on whether it entails sharing activity or direct selling [Gleim, Johnson, Lawson, 2019]. Schmidt [2017] differentiates between cloud workers (engaging in web-based digital labour) and gig workers (engaged in location-based digital labour). As digital technologies have become seamlessly integrated into our daily lives, they have permeated society and the economy [Chinoracky, Corejowa, 2019], as well as individual experiences. Prassl [2018] notes that people stopped being employees and became services themselves ("humans as the service"). Dungca [2020] observes that "the harsh and deregulated free market has been extended into previously protected areas of human lives". Intense competition within the gig economy arises from the combination of reduced operating costs, due to the absence of expenditures

on social protection, and heightened productivity [Aranguiz, Bednarowicz, 2018]. It is predicted that the primary concern in human resource management (HRM) will shift from job security to effectively managing the stress and lack of motivation experienced by those working in the gig economy [Harari, 2018]. Human work becomes a commodity “where the supply and demand of work are mediated by a digital platform, and where feedback, ranking and rating systems serve purposes of managerialisation and monitoring of workers” [Gandini, 2019] although others question this opinion [Paton, 2010]. Instead of previously developed relationships between sellers and buyers of work, short-term contracts based on civil law flourish. Formerly, the hiring process necessitated direct, personal interaction between interested parties; today, it is not essential. It is possible now to hire a worker online for a brief period or to complete a specific task, with the working relationship automatically terminating upon the expiry of the agreed-upon time period.

End customers who purchase services, gig workers (giggers) who provide the services, and the digital platform are the three participant groups in the gig economy [Benoit, Baker, Bolton, Gruber, Kandampully, 2017]. Owners of these platforms see them as a way to connect clients and service providers. In addition, the creation of new digital platforms using ubiquitous algorithms and artificial intelligence is gradually overtaking important HRM processes [Huang, Rust, Maksimovic, 2019], requiring the creation of new models and human skills. Fundamental managerial issues in today’s challenging labour relations also involve extrinsic and intrinsic motivation, determining who plays the manager role, and assessing whether traditional motivation concepts and practises are effective in modern workplaces.

We are confident that our study on platform economy motivation will shed new light on this vital management topic that has received little attention so far.

The main goal of this article is to determine whether, in the world of short-term, volatile relationships, extrinsic motivation applies with equal force today, and whether traditional motivation concepts and methods are still useful. We also intend to examine new motivation methods and tools in the gig economy.

Our research questions are as follows:

Q1 *Who* motivates gig workers when the labour relationship lacks a traditional line of command?

Q2 *What* needs motivate gig workers?

Q3 *What* methods and tools may be used to motivate gig workers? Do external incentives discussed in classic motivation theories apply to gig work?

Q4 *What* are *the gaps* in the research on the motivation of gig workers, and what are the directions for future research?

Methods

This paper is a comprehensive review of articles from the fields of economics, management, psychology, and education, which is an appropriate way to achieve our goal [Scully-Russ, Torraco, 2020]. After setting research objectives, we conducted a critical evaluation of past studies [Kuckertz, Block, 2021] and theories on motivation in traditional economies, acknowledging previous contributions. We focused on theories that may apply to gig work and examined the incentives that influence the behaviour of giggers. This is an in-depth study on selected, valuable concepts related to motivation: Content, Process, and others. Appendix 1 provides a list of selected theories and human needs with related references. We, then investigated the methods and external incentives that apply to new work arrangements.

Our literature review was based on the Web of Science (WOS) database, and we used keywords with Boolean connectors such as “gig*AND motiv* OR incentive*” to select the first articles that appeared in the title, abstract, or body. We limited our search for literature in English, published between 2010 and 2022, focusing on gig work intermediated by digital platforms, referring only to extrinsic motivation. After excluding false positives, we expanded our search by including relevant conference papers and studies from prominent international organisations that met our basic research criteria. In total, we reviewed seventy-eight articles. Additionally, we searched the WOS database for articles on “gig work* AND work AND based AND learning*” and only three matched our criteria. Based on this, we defined the incentives described in selected classic motivation theories that may apply to the motivation processes in the gig economy. We present them in Appendix 2. We believe this list is exhaustive and that expanding the search criteria and databases would not enhance it.

Findings

Although the gig economy has a substantial impact on the global labour market, it is challenging to quantify the number of people working within it. According to Caza [2020] “as much as one-third of the adult workforce may already be involved in gig work, and this proportion is likely to grow”. Organisations often do not specify the number of gig workers, considering them as either “temporary workers” [OECD, 2019a] or “self-employed” [Pesole, Urzi-Brancati, Fernández-Macías, Biagi, González-Vázquez, 2018], although these terms are not synonymous with gig workers. International organisations do not maintain precise statistics on platform workers. The difficulty arises, among others, from a shortage of crucial data or discrepancies at the national level [OECD, 2019b]. The numbers we now have are merely estimates [De Stefano, 2015; Shevchuk, Strebkov, Bögenhold, 2022]. The unknown population of gig work-

ers involved in online and offline gigs, as well as the lack of consistent nomenclature, complicates or renders the study processes on gig work difficult.

Unlike the regular labour market with employers and employees, gig work ties together workers, brokers (intermediary, platform), and end-users (customers) [Song, 2019]. All of them may play distinct roles at the same time: gig workers are producers when they offer goods or render services [Bergvall-Kåreborn, Howcroft, 2014], and when they release a new product, they can be considered innovators and/or entrepreneurs [Ravenell, 2019; Asih, Sucahyo, Gandhi, Ruldeviyani, 2019]. When they buy products or services, they are consumers (clients) and employers of the product/service providers. This diversity of roles and relationships makes gig worker group management exceptional [Stewart, Stanford, 2017; Skrzek-Lubasińska, Szaban, 2019]. The review of the literature indicates that the issue of motivation in the gig economy does not yet play the role it deserves. Jabagi, Croteau and Audebrand [2019] point out: “unique context, where gig workers lack an official human supervisor, and the processes by which organisations can support gig workers’ self-motivation are unknown and under-theorised”. Waldkirch, Bucher, Schou and Grünwald [2021], add: “While digital platforms and algorithms take on HRM practices, we know little about how HRM activities unfold on digital work platforms in the gig economy”.

Researchers are most interested in whether the decision to start a gig work was voluntary or forced [Gol, Stein, Avital, 2018; Dunn, 2020; Bellotti, Ambard, Turner, Gossmann, Demkova, Carroll, 2015; Spindeldreher, Schlagwein, 2016; Berger, Frey, Levin, Rao Danda, 2019]. It can be “a necessity for some and a luxury for others” [Rosenblat, 2016]. A crucial question is what type of incentives primarily determines such a decision [Adams, Freedman, Prassl, 2018; Berger et al., 2019; Churchill, Craig, 2019; Gandhi, Hidayanto, Sucahyo, Ruldeviyani, 2018; Benoit et al., 2017] and whether the gig work is the main or a supplemental job [Doucette, Bradford, 2019]. The second stream of research deals with motivating those already working in the gig economy.

We categorise the external incentives discussed in the literature review as follows:

- **material (monetary and non-monetary):** money is consistently an important incentive according to numerous studies [Churchill, Craig 2019; Gol et al., 2018; Burbano, Chiles, 2022; Muller, 2020; Gandhi et al., 2018; Rosenblat, 2016];
- **communication, bonds, social relations, and social networks:** Elkin-Koren [2011] makes a distinction between social interactions such as sharing opinions, skills and knowledge, rating products/services, providing feedback to other users, and tagging and sharing material like social networks. Graham, Hjorth and Lehdonvirta [2017] point out possible barriers to knowledge sharing, as rival gig workers may not be interested in doing so. Gleim et al. [2019] emphasise that gig workers might want to establish social relations within the platform, and this could be one of the reasons why they started such work in the first place. Kost, Fieseler and Wong [2019],

Wood, Lehdonvirta and Graham [2018], Kittur, Nickerson, Bernstein, Gerber, Shaw, Zimmerman and Horton [2013] observe that hosting networking events may give people a sense of belonging, and workers' involvement may increase when the platform functionality allows self-organising. It is worth noting that in the gig economy, there is no interdependence or connection between the workers and their supervisors, which is a unique property of conventional employment;

- **education – skills acquisition, career advancement:** Karlsson and Wranne [2019] emphasise the significance of workers' need for self-directed and life-long learning [Tikkanen, Hovdhaugen, Støren, 2018], upskilling, and overcoming obstacles. Leighton [2016] states that developing skills is essential for self-employed knowledge workers. A notable advantage is the chance to become an expert or a professional [Rosenblat, 2016]. The platforms may organise special webinars or other initiatives to improve the expertise of gig workers [Kost et al., 2019; Kosonen, Gan, Vanhala, Blomqvist, 2014];
- **work-based learning (WBL)** [Kis, Windisch, 2018]: The dual system of WBL – work and learn helps to prepare candidates for gig work and ensures they meet the needs of the job market. Digitally savvy young people can earn money while developing other work-related skills such as self-organisation, self-directed learning, critical thinking, problem-solving, communication and teamwork. In doing so, they broaden their background, focus on firsthand experience in their chosen career, and learn how to behave in an unfamiliar environment. Older giggers may learn “new tricks” to protect themselves from labour market exclusion. Workers, regardless of age, gain thanks to WBL, practice in increasingly popular forms of jobs and a dynamic attitude to develop their skills. This makes WBL a significant and desirable incentive in gig work;
- **opportunities for personal brand development** [Gol et.al., 2018; Schmidt, 2017; Vallas, Christin, 2018]: This is important for those who want to be noticed in the labour market;
- **the brand, reputation, quality, image, and prestige of the digital platform:** These particulars attract not only giggers but all platform users [Olson, 2009]. Burbano [2021] asserts that a platform's pro-ecological image may entice certain people to collaborate with it for ideological reasons. He also advises platform owners not to take positions on social and political issues that conflict with those of their workers, customers, and job applicants. According to Kim, Marquis, Alahmad, Pierce and Robert [2018], platform quality helps satisfy users' autonomy and satisfaction need;
- **flexible working arrangements, remote work** [Gol et. al., 2018; Berger et al., 2019; Mukhopadhyay, Chatwin, 2020]. Workers highly value these key factors that allow them to keep a work-life balance [Lehdonvirta, 2018];

- **independence, the autonomy of work** [Karlsson, Wranne, 2019; Gandhi et al., 2018; Alkhatib, Bernstein, Levi, 2017; Berger et al., 2019; Boeri, Giupponi, Krueger, Machin, 2018; Ravenelle, 2019; Holtum, Irannezhad, Marston, Mahadevan, 2022], **entrepreneurial freedom** [Benoit et al., 2017]. This includes *inter alia* the freedom to select projects and determine when, where, and how to complete the task or provide a service. This approach is well-liked in the labour market because it allows people to choose what kind of work, they like best, or they can do [Kessler, 2018];
- **values/morality/altruism/CSR**. Bellotti et al. [2015] write: “We do see that user-providers can be motivated by altruism and moralistic impulses”. According to Gleim et al. [2019], gig workers’ feelings towards the company they work for are positively correlated with their opinion of the firm’s products value, quality, and satisfaction. Friedman [2014] observes that Corporate Social Responsibility (CSR) could improve the platform’s image and increase the giggers’ identification with it;
- **hedonic motivation**: Fun, pleasure, and enjoyment at work are important motivational factors [Zaman, Nawaz, Javed, 2020; Frenken, Schor, 2019; Rosenblat, 2016 (*hobbyists*); Spindeldreher, Schlagwein, 2016]. Appropriate incentives are of considerable importance in any job [Prabowo, Sucahyo, Gandhi, Ruldeviyani, 2019];
- **participation in the competition and gamification**: Platforms can increase workers’ satisfaction by introducing gamification to their services [Dale, 2014; Norlander, Jukic, Varma, Nestorov, 2020; Mollick, Werbach, 2015]. Meeting challenges motivates people and encourages them to take part in the game introduced by the organisation [Spindeldreher, Schlagwein, 2016; Behl, Jayawardena, Ishizaka, Gupta, Shankar, 2022; Pereira, Behl, Jayawardena, Laker, Dwivedi, Bhardwaj, 2022]. Norlander et al. [2020] claim that „algorithmic management is... often incorporating elements of “gamification” that keep workers returning to the platform through motivational techniques”. The significant point is that the platform “playing games, generally (has) the ultimate goal of influencing users’ behaviour” [Huotari, Hamari, 2012].

Once the values and needs of each user are known, the platforms’ infrastructure should meet those needs. Below we present the platform functionalities identified in our review:

- performance appraisal management system [Zhang, Liu, 2020]: This system tconsiders every click, scroll, and keyboard movement made by the user [Rzeszotarski, Kittur, 2012]. An example is a digital surveillance system, such as Upwork’s Work Diary that allows end-users to virtually review the contractor’s computer screenshots. This system not only controls the worker but also motivates him/her to stick to the contracted task [Jabagi et al., 2019; Muller, 2020; Guda, Subramaniana, 2019; Wu, Zhang, Li, Liu, 2019; Norlander et al., 2020; Benlian, Wiener, Cram, Krasnova, Maedche, Mohlmann, Remus, 2022; Fest, Kvaløy, Nieken, Schöttner,

2021]. This management transforms into a pure algorithmic control system and is known as management by machine [Kaine, Josserand, 2019];

- pricing policy: Designed by the platform with business goals, such as profit, company survival, or gaining market share, the pricing policy influences gig workers' motivation and ultimately helps them decide whether to continue with this type of work [Guda, Subramaniana, 2019; Liu, Brynjolfsson, Dowlatabadi, 2018];
- ranking, rating system, recommendations, and micro-credentials [Mukhopadhyay, Chatwin, 2020; Toxtli, Richmond-Fuller, Savage, 2020; Wheelahan, Moodie, 2021]: Digital platforms use relevant databases to measure productivity by “allowing comparison between workers...who have completed the same task...with data from ratings and tracking. It is a technique that allows platform providers to reward favourable user behaviour” [Schmidt, 2017];
- peer-based feedback via online communication: This is a source of indispensable information for gig workers [Kost et al., 2019] and prevents their feeling of isolation;
- versatility of the multi-tasking platform [Mukhopadhyay, Chatwin, 2020]: This opens more job opportunities and gives giggers a sense of freedom of choice;
- setting rules [Mukhopadhyay, Chatwin, 2020]: Research on UBER shows how the platform arbitrarily sets work rules implemented by AI and algorithms, regardless of passengers' or drivers' interests. Marquis, Kim, Alahmad, Pierce and Robert [2018] state that strict employee control through dedicated applications, including rewards and penalties, is part of the platforms' strategy. Rosenblat and Stark [2016] call it “soft control”.

New platform management systems are not always transparent and fair to the workers. For instance, gig drivers often do not know how much they will earn at the end of the day. Depending on the platform design, those giggers who work longer via the platform, accept more offers of work, or are not troublemakers may receive more lucrative offers. Muller [2020] points out that the regulation of algorithms used by platforms to manage gig workers sometimes leads to “abusive practices” and causes “algorithmic harm” to them. Wu et al. [2019] notice that “once workers were involved in the ‘game’, however, they stopped questioning the rules of the game, which invariably won the platform labour consent anyway”. It did not take long for the giggers to respond – they also started to use and share “gaming strategies” [Chan, Humphreys, 2018] that are “cynical efforts to manipulate the rankings data”. Möhlmann and Zalmanson [2017] provide examples of actions undertaken by gig drivers to outsmart the collaborating platforms and harm the system, such as cancelling rides, deactivating GPS, or the service system, switching from one platform to another, and finding loopholes in the system to increase potential income. This usually prompts a reaction from the platform. The system may occasionally be changed to stop well-known harmful tactics from operating,

and to make cheating more difficult. Platform owners implement automatic solutions that encourage users to follow platform preferences. The cat-and-mouse game continues.

The literature examining gig work motivation is discipline-specific [Kilhoffer, Lenaerts Beblavý, 2017]. We were primarily interested in economics-based interpretations that classify certain work processes as external to the workers [Howell, Kalleberg, 2019] and focused on factors that encourage gig workers to remain in their jobs.

We present the set of external incentives from relevant theories of motivation in Appendix 2. The table includes the incentives (col.1), their feasibility from the platform's perspective (col.2) and from the end-users' perspective (col.3). We would like to clarify that this table refers only to hypothetical, not real platform operations. However, the management of digitised work may use this original list of external incentives as a set of motivational toolkits for digitised work.

Discussion

In most traditional work situations, the manager or supervisor is the key player in motivating workers. The question of who and how can inspire giggers is essential, but since there is no clear hierarchy in gig work, further investigation is necessary [Jabagi et al., 2019]. Without sufficient motivation, gig workers will limit their work supply or deploy minimal effort and involvement.

The research indicates significant shifts in economic paradigms [Raworth, 2017]. Motivation is a challenge these days, especially with impersonal HR responsibilities. The replacement of people by platforms and algorithms affects social relations at both the micro- and macro-levels. For example, the exclusion of human factors causes digital platforms, artificial intelligence (AI), and algorithms to use external motivators to build entirely different relationships. Such advancements require ongoing skill development (e.g., through WBL) and are essential for the future of work.

Although digital platforms conduct several important HR-related tasks, we cannot presume that they have entirely replaced people. This lends credence to the idea that, despite the relative immutability of human nature, neo-HR, motivation-related classic theories, and motivation practices, remain valid today. However, motivational methods and technological advancements are evolving. According to the literature review, operations performed with digital instruments are not as objective as previously thought. For example, the financial incentive system intended to serve workers but its transformation into the platform's "pricing policy", steering this idea in an undesired direction.

Owners always prefer to position their digital platforms as mediators between gig workers and end-users rather than admitting that they have gradually taken on cer-

tain managerial duties. Algorithms and AI pick candidates for jobs, as well as control and inspire gig workers. Customers (end users) can only execute performance appraisals in the form of ratings or credentials for workers – if the platform’s algorithms allow it. When platforms make crucial decisions, there is no room for conventional human interactions known in relations between employers and employees. It is just the default agreement for decision-making algorithms and subordinate human labour. The algorithmic management system resembles a game between platforms and workers. In a gamification system, both parties devise strategies to outwit the other. The focus shifts from cooperation to antagonism and competition.

Regarding the basic needs as traditional employees understand them, it is feasible to consider them also to motivate gig workers. However, they demand the use of suitable incentives tailored for platform workers. Even though technology cannot perfectly match human nature and needs, worker motivation and platform design remain important when a business operates with technology [Frenzel, Trenz, Veit, 2019]. Despite the prior acknowledgement of the significance of rating and recommendation systems [Mukhopadhyay, Chatwin, 2020; Toxtli et al., 2020], the platform design and motivation strategy should not be confined to these elements alone. Therefore, all platform functions that enable workers to take part in gamification [Behl et al., 2022], offer solutions to increase fairness in the gig economy [Chiu, Palupi, Zhu, 2022], and projects targeted at establishing social bonds are highly desired. Their promotion should follow self-development through training programmes, webinars, and work-based learning [Kis, Windisch, 2018].

According to our findings, popular incentives employed in the traditional economy can also be used in a framework that regulates gig work. Security (safety), one of the fundamental human needs, is problematic under the current legal system because platform work fails to ensure social security protection like that guaranteed by the Labour Codes in most Member States. The European Commission is still working on the directive that will advise the Member States to improve the working conditions for platform workers¹. Platforms deny cooperating workers the benefits and rights that come with being employees. Legal actions brought against platform owners’ rules in different countries support this thesis.

The inherent uncertainty in gig jobs might be intimidating for gig workers. Additionally, those eager to work in a highly competitive labour market may replace giggers at any time. Giggers’ needs such as striving for power, position, work significance, importance, or challenging tasks/goals are rarely satisfied.

¹ Directive of the European Parliament and of the Council on improving working conditions in platform work, Brussels, 9.12.2021 COM(2021) 762 final 2021/0414 (COD).

The sole challenge lies in making a living, which is a universal problem of precarious workers' relations in their careers and society [Vallas, Schor, 2020; Wheelahan, Moodie, 2021].

Since WBL helps to fulfil people's need for self-actualisation and self-development, it is an external, crucial incentive in the gig economy. WBL accomplishes a dual goal by allowing learners and workers to develop their professional skills. Individuals use this method because it allows them to make money as they learn. By participating in webinars that platforms offer and exchanging expertise with other workers via forums and social media, gig workers can gain new skills, retrain, and get work experience without having to take time off from their current position.

Although our study concentrated on external incentives, we cannot ignore the significant role intrinsic motivation, defined as the doing of an activity for its inherent satisfaction rather than for separable consequence [Ryan, Deci, 2000]. When intrinsically motivated, a person starts to act for the fun or challenge entailed rather than because of external products, pressures, or rewards. Extrinsic motivation, which pertains whenever an activity is done to attain some separable outcome [Jabagi et al., 2019; Ryan, Deci, 2000], also plays a significant role in the choice to start and continue working in the gig economy. When people work for digital platforms, it can be problematic to satisfy human needs like safety, belonging/affiliation, or esteem. Workers of digital platforms typically fulfil their basic material needs and the motivational techniques and tools employed by platforms do not clash with addressing giggers' internal demands such as autonomy or self-actualisation. Extrinsic incentives can support intrinsic motivation when they are internalised. However, external incentives may undermine intrinsic drive and, in certain circumstances, demotivate gig workers [Mitchell, Schuster, Jin, 2020]. Further study on the online and offline workforce is necessary for this specific problem. Future studies should consider giggers' intrinsic motivation, which is not covered in this paper but is nevertheless significant [Wiesenfeld, Raghuram, Garud, 2001] and cannot be disregarded.

Conclusions

We reviewed the research on several motivation-related theories and approaches to determine how to broaden or modify them to match contract jobs. Despite the multiplicity of gig workers and their unconventional forms of employment, we presumed that many theories of motivation that have been proven in practice in the past still hold today.

The recognition of the importance of new labour relations in the gig economy grows with the observation that working people are not only the "workers without employers" [Friedmann, 2014] or subordinates without immediate superiors, but also people

deprived of the sense of belonging to the organisation they could identify with. When algorithms and AI develop a system enabling the rising predominance of gig work [Caza, 2020] with the motivating process gradually taken over by digital platforms, the incentive effect becomes impersonal. The skills of gig workers must align with the demands of the digitalisation of the workplace, which affects labour market supply and demand, presenting challenges for the educational system. WBL has taken the place of internships and apprenticeships in today's economy. It can be a useful incentive for gig work and a source of qualified job applicants to enter the labour market.

Below, we respond to the research questions:

Digital platforms have significantly outgrown their initial broker's role and replaced humans in their HR duties, *inter alia*, changing some traditional methods of motivation and introducing new ones. Also, the end-users can, to a certain extent, motivate gig workers, but only when the platform's infrastructure allows it.

Gig workers, like all the other employees, are motivated to fulfil their needs, i.e.:

1. Basic: physiological and safety,
2. Affiliation, belonging, and maintenance of interpersonal relations,
3. Fit: to the environment, organisation, and job,
4. Appreciation, and recognition,
5. Fairness,
6. Freedom, autonomy, independence,
7. Self-actualisation and self-development.

Most of the conventional incentives are also applicable to gig work.

Digital platforms use various tangible and intangible, time-tried motivation methods and tools. They offer gig workers highly appreciated freedom/autonomy and flexibility.

Despite recent studies on the gig economy, there are still misconceptions about giggers' motivation that need to be addressed and the knowledge gaps that require filling. The fact that the methods used to conduct the research concerning the motivation of gig workers do not allow any generalisation creates the problem. The lack of a comprehensive approach to motivating gig workers is another issue. There is not much empirical research on external incentives in the gig economy, and the existing studies tend to focus on platform-specifics. Future studies should include non-platform gig work.

We understand the critical role that intrinsic motivation plays in gig employment. Future study in this area is crucial.

We emphasise the importance of digital platforms, notably motivation, based on their usefulness in the gig economy, we selected external incentives from conventional motivation theories, taking note of those that appeared in the new work arrangement (Appendix 2). We acknowledge that the platform's architecture, rules of operation, and functionality (together with the owner's intent and notion in the background) determine how the motivating process functions and its results.

Implications

Our findings, we feel, could be noteworthy for theory, practice, and policy, and they indicate the way for future research on motivation in gig work.

Our identification of the HR functions of digital platforms may have an impact on the labour market, management of platforms, social relations generally and on particular jobs, and motivation of gig workers. Additionally, the outcomes of our study may influence the education sector, and the operations of organisations responsible for conducting global statistics and research. The labour market, platform management, social relations in general and regarding particular jobs, and gig worker motivation may all be impacted by our identification of the HR functions of digital platforms. Because workplace design and interactions originate from the multiple disciplines we discussed previously, this provides a more comprehensive understanding of them. The findings corroborate standard motivation theories in the sense that gig workers do not differ fundamentally from typical employees in their effort to fulfil their needs. However, our results challenge old concepts, revealing that gig workers have different priorities regarding the fulfilment of their needs. This suggests the theoretical implications involve a change in social and economic paradigms concerning the incentives effect in gig work.

When impersonal platforms replace people, it also affects social relations on micro and macro levels. Due to their frequent lack of customary supervision and bonds, gig workers and their priorities in terms of needs require specific motivation methods and external incentives, which should be in line with the new institutional environment. Appendix 2 contains an original list of traditional and modern external motivators that apply to gig work. It provides public authorities with a practical tool to develop new regulations on the working conditions of gig workers. Platform managers who motivate gig workers, can conclude and consider that the giggers value flexibility, freedom, and work-life balance the most. This may guide them in their motivational function. It appears that the gig economy, despite all its drawbacks, offers fresh and appealing options for people for whom these needs are important.

The implications of inconsistent statistics and the lack of clear definitions of gig work indicate the need to form a base for systematically collecting and analysing global gig economy data. Official statistics and research on the labour market, such as Labour Force Survey (LFS), should include gig platform work. We also need to think about how to make information from online job-creation platforms available to scholars. This necessitates the collaboration of academic networks and international organisations such as the European Union and the OECD. Until a deliberate effort is made to give everyone access to relevant, representative data, research on the gig economy will remain fragmented and insufficient.

The mentioned research gaps on gig work call for novel studies on the platforms' management, functionalities, distinguishing characteristics, and gig platform workers' motivation.

Appendix 1

Theories of motivation and human needs

Theories/ Author(s)	WHAT motivates: Needs
Content Theories	
Maslow's hierarchy of needs [1954]	D-needs-deficiency needs, B-needs-growth, development
ERG theory [Alderfer, 1969]	Existence, relatedness, growth
Three Needs Theory [McClelland, 1961]	Achievement, affiliation, power
Three-Factor Theory of Human Motivation [Sirota, Mischkind, Meltzer, 2005]	Equity/fairness achievement camaraderie: good relationships
Achievement Motivation [Atkinson, 1957; Atkinson, Feather, 1966]	Achievement of success and the avoidance of failure
Goal-Setting Theory [Locke, 1968; Locke, Latham, 1990]	The attainment of the challenging goal
Four Drivers or Emotional Needs Theory [Lawrence, Nohria, 2002; Nohria, Groysberg, Lee, 2008]	To acquire-goods and social status to bond-a good relationship and interactions with other people to comprehend-the need to solve problems and meet challenges as working people can learn and grow to defend-fulfilling the security and confidence need
Process Theories	
Equity Theory [Adams, 1963]	The ratio of contributions (or costs) and benefits (or rewards) for each worker; fairness
Expectancy Theory [Vroom, 1964; Vroom, Deci, 1970]	The expectation to receive the desired reward when an achievable target is achieved
Reinforcement Theory [Skinner, 1953]	Positive and negative reinforcement; rewards and penalties
Motivation Related Theories	
Reasoned Action Approach (RAA) [Fishbein, Ajzen, 2010]	People's intentions predict their behaviours
Attribution Theory [Weiner, 1974; Kovenkloglu, Greenhaus, 1978]	Attributions for achievement; three causal dimensions: locus of control (internal, external), stability, and controllability
Job Characteristics Model (JCM) [Hackman, Oldham, 1980]	The task itself <ul style="list-style-type: none"> ▪ Meaningfulness of work ▪ Responsibility, autonomy ▪ Delegation of tasks to their lowest level ▪ Knowledge of how successful the work has been-feedback ▪ Varied work to enable skill variety ▪ Assignment of work to teams

Theories/ Author(s)	WHAT motivates: Needs
Fit Theory Person-Environment fit [Edwards, 1991; Holland, 1997]	Mutual understanding and influences
Person (personality) – job fit (P-J fit) [Edwards, 1991]	A match between an individual and the requirements of the work environment, job, and personality of the worker
Person – organisation (P-O fit) [Kristof, 1996]	The compatibility of values and expectations between workers and the organisation

Source: own study.

Appendix 2

External incentives and their applicability to the gig work

Incentives (Theories/Articles/Selected Authors)	On the part of the platform	On the part of the end-user
Financial, firstly addressing gig workers' physiological needs [Maslow, 1954; Alderfer, 1969]	A	A ^a
The social security system, social protection [Maslow, 1954; Alderfer, 1969]	N/a ^c	N/a
Regular income [Maslow, 1954; Alderfer, 1969]	A ^b	N/a
Affiliation, sense of belonging, camaraderie, identification [Maslow, 1954; Alderfer, 1969; Kost et al., 2019; Olson, 2009]	A ^c	N/a
Establishment and maintenance of social relations, bonds [Maslow, 1954; Alderfer, 1969; Sirota et al., 2005; Lawrence, Nohria, 2002; Wood et al., 2018]	A ^c	N/a
Recognition Ratings, Rankings [Maslow, 1954; Alderfer, 1969; Spindeldreher, Schlagwein, 2016]	A ^f	A ^f
Satisfying work [Maslow, 1954; Alderfer, 1969; Lawrence, Nohria, 2002; Kim et al., 2018]	A ^d	N/a
Work significance, importance [Maslow, 1954; Alderfer, 1969; Sirota et al., 2005; Fishbein, Ajzen, 2010]	N/a	N/a
The pursuit of success, achievements [McClelland, 1961; Atkinson, 1957; Atkinson, Feather, 1966; Sirota et al., 2005; Vroom, 1964]	A ^f	N/a
Striving for power and status [McClelland, 1961; Atkinson, 1957; Atkinson, Feather, 1966]	N/a	N/a
Failure, pain avoidance [Atkinson, 1957; Atkinson, Feather, 1966; Vroom, 1964]	A ^f	A ^f
Equity/fairness [Sirota et al., 2005; Adams, 1963]	A ^g	A
Challenging tasks/goals [Locke, Latham, 1990; Hackman, Oldham, 1980; Lawrence, Nohria, 2002; Spindeldreher, Schlagwein, 2016]	N/a ⁱ	N/a

Incentives (Theories/Articles/Selected Authors)	On the part of the platform	On the part of the end-user
Autonomy, freedom, independence [Jabagi et al., 2019]	A	N/a
Flexibility [Berger et al., 2019; Boeri et al., 2018; Pesole et al., 2018]	A	A
The balance between inputs (effort) and outputs (reward) [Adams, 1963]	A	A
Appropriate rewards and penalties [Skinner, 1953]	A ^f	A ^f
The feedback concerning the work done [Hackman, Oldham, 1980; Locke, Latham, 1990; Lawrence, Nohria, 2002; Kost et al., 2019; Fest et al., 2021]	A ^g	A ^g
Fit (P-O, P-E, P-J) [Gleim et al., 2019; Holland, 1997; Edwards, 1991; Kristof, 1996]	A ^g	N/a
Development opportunities, skills-formation, knowledge acquiring/sharing [Sirota et al., 2005; Kost et al., 2019; Kosonen et al., 2014; Kis, Windisch, 2018]	A ^h	N/a
Work-based learning (WBL) [Kis, Windisch, 2018]	A	N/a

A – may be applied, N/a – cannot be applied

^a when the platform regulation allows

^b work via a platform may be a relatively stable source of income

^c depends on gigger's identification with the platform, its brand or collaborators

^d depends on work conditions

^e not commonly used – yet

^f depends on the rating system structure

^g depends on the platform's functionality

^h with platforms' webinars; work-based learning

ⁱ because of simple, repetitive gigs simple, repetitive gigs

Source: own study.

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