

Ethical predicaments of gig economy: Bibliometric approach



Anthony Andrew Wahyu Kusumo Hadi ^{a,1*}, Aluisius Hery Pratono ^{a,2}

^a Faculty of Business and Economics, University of Surabaya, Indonesia

¹ anthonyandrew393@gmail.com; ² hery.pra@staff.ubaya.ac.id

* corresponding author

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ABSTRACT

This article rigorously examines the landscape of gig economy literature, focusing intently on ethical considerations through a comprehensive bibliometric analysis of 1000 publications spanning from 2015 to 2023. The investigation reveals the emergence of four primary cluster topics—gig economy, flexibility, privacy, and security—unveiling critical dimensions within the ongoing discourse on the evolving nature of gig employment. Significantly, the study identifies intriguing subtopics necessitating further exploration, such as data security, surveillance, worker exploitation, precarity, and legal considerations. This nuanced exploration not only contributes to the existing gig economy literature but also catalyzes essential discussions surrounding pressing ethical concerns in the contemporary world of work. The implications of the findings are profound, emphasizing the imperative for sustained research efforts to deepen our understanding of the evolving challenges within the gig economy, thereby enriching policy debates in the ever-evolving landscape of the labor market. This study not only provides valuable insights but also acts as a roadmap for ongoing discourse, guiding future inquiries into the intricate ethical facets of the gig economy and shaping frameworks and policies aligned with the dynamic nature of contemporary work environments.

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1. Introduction

An ethical predicament is a situation in which a person or a group of people face a moral dilemma or conflict that involves deciding between two or more courses of action, each of which may have ethical implications. These predicaments arise in the gig economy, which has emerged in a labour market characterized by short-term, freelance, or on-demand work arrangements facilitated by digital platforms (Lehdonvirta, 2018). The concept encompasses various activities, including ride-hailing services, food delivery, online freelancing, and home-sharing platforms (Codagnone & Martens, 2016; Woodcock, 2021). This decentralized and flexible labour model has attracted millions of workers globally, promising them independence, autonomy, and the ability to earn income on their terms (Anwar & Graham, 2021).

On the contrary, oppression raises a critical ethical concern within the gig economy. While appealing to some, the flexible nature of gig work can expose workers to precarious conditions, low wages, and limited employment security (Aloisi, 2016; Pilatti et al., 2023). The power dynamics inherent in the gig economy led to instances of exploitation, with platform companies exerting control over workers' pay, working hours, and terms of engagement (Shapiro, 2020). Furthermore, the gig economy has been criticized for exacerbating income inequality and perpetuating social disparities, as marginalized and vulnerable populations often face barriers to accessing and benefiting from gig work (Frenken et al., 2020; Vyas, 2021).

Regulating the gig economy has proven to be daunting for policymakers worldwide. Traditional labour laws and regulations were primarily designed to address the needs and challenges of the formal employer-employee relationship (Collier et al., 2017). The gig economy blurs the boundaries between employment and self-employment, creating a grey area where workers may not be afforded the same protections and benefits as their counterparts in traditional employment arrangements (Aloni, 2018; Collier et al., 2017; Donovan et al., 2016). As a result, debates have emerged regarding the appropriate classification of gig workers, their access to social protections, and the responsibility of platform companies to ensure fair and dignified working conditions (Stewart & McCrystal, 2019; Vallas & Schor, 2020). The debate on the labour market theory focuses on wage and human capital investment. For example, the Economic Nobel awardee 2021, Card and Krueger, challenged the widely held belief that increasing the minimum wage would lead to lower employment levels. In addition, Claudia Goldin gained the Economic Nobel in 2023 following her influential research on gender-related studies, exploring various aspects of women's roles and experiences in the labour market, including the job-flexibility penalty (Le Brocq et al., 2023).

Addressing the ethical challenges of the gig economy requires a comprehensive understanding of the complexities involved. Scholars, policymakers, and stakeholders have engaged in extensive discussions and debates to propose potential solutions and frameworks. Previous gig economic studies have emerged, from adapting existing labour laws to developing new legislation tailored specifically for gig work (Kirchner & Schüßler, 2020). Additionally, calls for platform accountability, worker representation, and promoting fair work principles have gained momentum in shaping the discourse around gig economy regulations (Riley, 2017; Bates et al., 2019). This article aims to provide a comprehensive analysis of the regulatory landscape and ethical challenges surrounding the gig economy. This study seeks to contribute to the ongoing discussions and shed light on the complexities and in the gig economy by synthesizing and critically examining the key findings and arguments presented in the literature. As the gig economy evolves rapidly, our study offers up-to-date insights by providing research maps for current discussions and future policymaking. The results are particularly relevant given the gig economy's increasing role in the global workforce, necessitating a thorough understanding of its impact and the development of ethical frameworks for a fair and just work environment.

In the expansive gig economy literature, a conspicuous void persists in comprehensively understanding its impact and developing ethical frameworks for a just work environment. While individual components like gig work arrangements have been scrutinized, there's a noticeable gap in synthesizing findings into a holistic understanding. The ethical nuances of gig work, including data security, surveillance, and worker exploitation, remain insufficiently explored. The gap is characterized by a lack of cohesive research systematically dissecting the multidimensional impact of the gig economy, especially from an ethical standpoint, and offering inclusive frameworks. This study contributes significantly by addressing the gap. Using a bibliometric approach, it rigorously analyzes publications from 2015 to 2023, unraveling patterns on pivotal cluster topics: gig economy, flexibility, privacy, and security. This lens facilitates nuanced comprehension of the gig economy's impact. Identification of key subtopics—data security, surveillance, worker exploitation, precarity, and legal intricacies—serves as a roadmap for future inquiries. The study goes beyond exploration by offering a synthesized perspective, providing salient insights for scholars, policymakers, and practitioners. The novelty lies in its distinctive bibliometric scrutiny of gig economy literature, accentuating ethical dimensions. While bibliometric analyses within this domain are not unprecedented, this study extends beyond cataloging. Its uniqueness lies in identifying emergent themes and subtopics, laying the groundwork for a nuanced understanding of the gig economy's ethical intricacies. Incorporating recent publications up to 2023 ensures encapsulation of the latest developments. The emphasis on ethical frameworks introduces practical significance, addressing a pivotal facet of the gig economy discourse. This research stands out as a pioneering endeavor, comprehensively mapping existing literature and shaping future research and policy considerations.

2. Method

This study employs a bibliometric approach to understand patterns and trends in the ethical literature of the gig economy by analysing citations, publication counts, and other bibliographic data. Bibliometrics provides a quantitative approach to evaluate the impact and productivity of research. This approach is beneficial for assessing the influence of academic literature. Secondly, bibliometrics helps researchers assess articles' impact with citation metrics. The bibliometrics provide information

of existing labor laws in addressing the unique challenges posed by this new form of employment.

b) Flexibility (Blue)

One of the key attractions of the gig economy is the flexibility it offers to workers in terms of determining their working hours and locations (Lehdonvirta, 2018). Gig workers have the autonomy to choose when, where, and how much they work, which is often perceived as a benefit. However, this flexibility can also lead to unpredictable income, job insecurity, and a lack of social protections (Woodcock, 2021). The absence of traditional employment benefits, such as health insurance and retirement plans, further exacerbates the vulnerability of gig workers (Graham & Shaw, 2017; Pratono et al., 2023).

c) Privacy (Red)

In the gig economy, digital platforms collect vast amounts of personal data from workers and consumers (Sannon et al., 2022). This raises significant concerns about privacy and data protection. Gig workers may be required to share personal information, such as their identification documents and banking details, with the platform operators, potentially exposing them to privacy risks (Condagnone et al., 2018). Moreover, the algorithms used by platforms to match workers with gigs and evaluate their performance can lead to surveillance and monitoring, infringing upon workers' privacy (Shapiro, 2020).

d) Security (Yellow)

The gig economy poses security challenges for both workers and consumers. Gig workers often lack job security due to the absence of employment contracts or long-term commitments (Tran & Sokas, 2017). They are susceptible to sudden changes in demand, non-payment or underpayment for their services, and arbitrary deactivation of their accounts by platform operators (Aloni, 2018). Similarly, consumers may face security risks when using gig economy services, such as concerns about the reliability and quality of service providers (Batmunkh et al., 2022). These security concerns call for appropriate regulations and mechanisms to safeguard the interests of both workers and consumers.

e) Regulation (Purple)

Recognizing the unique challenges posed by the gig economy, there is a growing consensus on the need for tailored regulations to ensure fair treatment and protect workers' rights (Kirchner & Schüßler, 2020; Putri et al., 2023). Regulatory efforts aim to address issues of worker classification, access to benefits, and overall economic well-being (Stewart & McCrystal, 2019; Vallas & Schor, 2020). Tailored regulations are essential to strike a balance between fostering innovation in the gig economy and safeguarding the rights and well-being of gig workers.

This study provide that gig economy and regulation cannot be separated. Figure 2 indicate a focus on regulatory aspects of the gig economy. Putri et al (2023) stated that regulation need more complement or needed on below minimum wages, long hours, lack of employee status and social protections for workers. To further enrich our comprehension and provide a more in-depth analysis of the pertinent themes, we turn our attention to the subsequent table section. This section meticulously dissects the frequency and relevance of terms derived from the body of literature, thereby offering an exhaustive portrayal of the predominant subjects and issues that permeate discussions concerning the gig economy. Notably, the table emphasizes the pivotal roles played by terms such as "security," "privacy," "regulation," and "worker" within the ongoing discourse, signifying their significance in comprehending the far-reaching implications of the gig economy on labor rights and protections.

Table 1 presents a term frequency and relevance analysis, particularly co-occurrence networks of terms in scientific literature. In this analysis, terms from a corpus of documents have been extracted and ranked based on their frequency of occurrence and relevance. Overall, the table provides valuable insights into the key topics and themes associated with the gig economy, including ethics, technology, labor, regulation, and privacy. Researchers and policymakers can use this analysis to understand the prominent concerns and areas of interest within the field. Table 1 not explain only on existing gig economy literature but also catalyzes essential discussions surrounding pressing ethical concerns in the contemporary world of work.

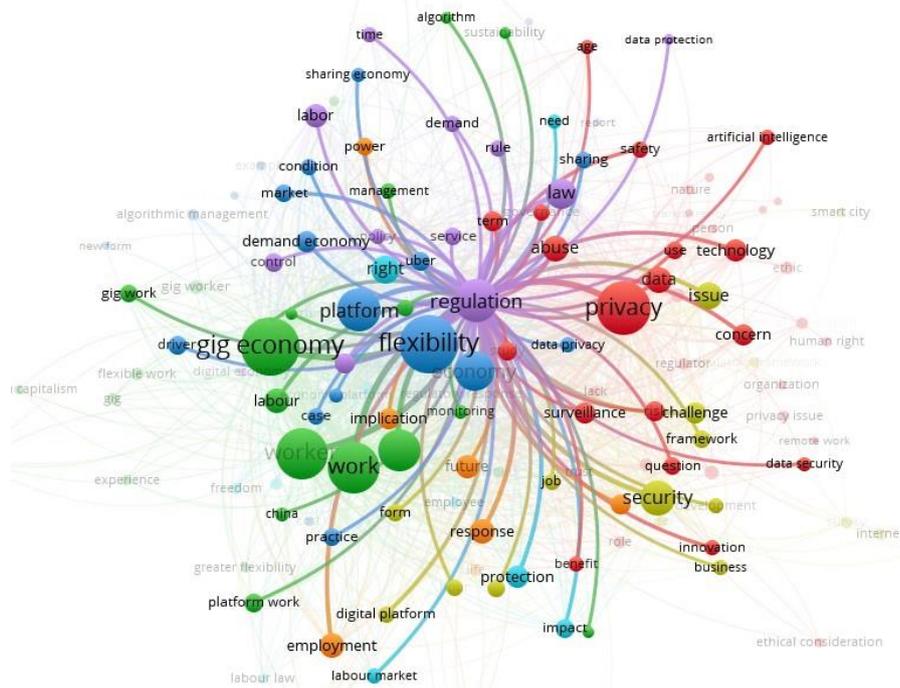


Figure 2. Topics Relate to Regulation

Term column lists the specific terms or keywords extracted from the corpus of documents. These terms are relevant to the subject matter being studied. The occurrence column presents the number of times each term appears in the corpus of documents. Terms with higher occurrences are more frequently discussed in the literature. The relevance score is a measure of how important or central each term is within the corpus. It is often calculated based on factors like co-occurrence with other terms and their positions in the documents. Higher relevance scores indicate that the term is more central or significant in the context of the corpus. The observations result:

- a) **Highly Occurring Terms:** The terms "gig economy," "privacy," "worker," "economy," "response," and "regulation" have high occurrences, indicating that they are frequently discussed topics in the corpus of documents.
- b) **Highly Relevant Terms:** The term "thing" has the highest relevance score, but it might not be very informative in this context. Terms like "internet," "survey," "human right," "pandemic," "covid," "ethical concern," "ethic," "artificial intelligence," "privacy issue," "framework," "digitalization," and "fourth industrial revolution" also have relatively high relevance scores, suggesting their importance in the literature.
- c) **Ethical Focus:** Many terms related to ethics and ethical considerations appear in the list, such as "ethical concern," "ethical implication," "ethic," "ethical consideration," "privacy issue," and "ethical issue." This suggests that ethical considerations are a significant aspect of the discussions related to the gig economy.
- d) **Technology and Data:** Terms like "technology," "data," "data security," "data protection," and "algorithm" indicate the importance of technology and data-related topics in the context of the gig economy.
- e) **Labor and Employment:** Terms such as "worker exploitation," "labour law," "employment," "employment law," and "labor" highlight the focus on labor and employment issues within the gig economy.
- f) **Privacy and Security:** "Privacy," "data security," and "privacy concern" emphasize the concerns regarding privacy and data security associated with the gig economy.
- g) **Regulation:** Terms like "regulatory framework," "regulatory response," "regulator," "regulation," and "policy" indicate a focus on regulatory aspects of the gig economy.
- h) **Flexibility:** "Greater flexibility" and "flexible work" suggest that the flexibility of work arrangements is a recurring theme in the literature.

- i) Platform Economy: "Platform capitalism," "platform work," and "platform economy" show that discussions about the platform-based nature of the gig economy are prominent.
- j) Pandemic Impact: Terms like "pandemic" and "covid" indicate that the COVID-19 pandemic has had an impact on discussions related to the gig economy.
- k) Gender and Discrimination: The terms "woman" and "discrimination" suggest discussions related to gender issues and discrimination within the gig economy.

Table 1. The Relevance of Gig Economy

Keywords	Occurrences	Relevance
Thing	11	17.05
Internet	20	10.01
Survey	20	5.12
Human Right	15	3.45
Pandemic	15	3.41
Smart City	14	3.32
Covid	23	2.44
Ethical Concern	15	2.25
Ethic	27	2.18
Ethical Implication	21	1.98
Artificial Intelligence	25	1.76
Privacy Issue	17	1.73
Ethical Consideration	14	1.69
Framework	35	1.64
Information	11	1.62
Digitalisation	10	1.54
Remote Work	10	1.5
Greater Flexibility	13	1.32
Transparency	12	1.31
User	25	1.25
Regulatory Framework	17	1.25
Worker Exploitation	12	1.23
Precarity	22	1.22
Data Security	21	1.18
Data Protection	12	1.18
Ethical Issue	30	1.15
Person	15	1.14
On Demand	11	1.07
Gig Work	37	1.06
Flexible Work	25	1.04

Source: Author's calculation

The results present a multifaceted focus on various aspects of the gig economy and its associated challenges. One prominent target of the paper is the examination of the gig economy itself, with a particular emphasis on understanding its dynamics, impact, and the unique challenges it presents. The high occurrence (479) and relevance score (0.27) of the term "gig economy" underscore its central role in the research. Additionally, the paper delves into the critical issue of privacy within the gig economy, as evidenced by the high relevance scores of related terms like "privacy" and "data security." This suggests a significant focus on the privacy concerns arising from the use of technology and data

in gig work. Furthermore, the paper appears to explore the regulatory landscape surrounding the gig economy, including topics related to "regulatory framework" and "regulatory response." These terms' high relevance scores indicate an examination of the legal and policy frameworks that govern gig work. The ethical dimension of the gig economy is another target, with terms like "ethical concern," "ethical implication," and "ethical issue" highlighting the paper's focus on ethical considerations and dilemmas in the context of gig employment.

Labor-related issues are also central to the paper, with a focus on "worker exploitation," "labor law," and "employment." These terms suggest an analysis of the working conditions, legal protections, and challenges faced by gig workers. Moreover, the role of technology and data in shaping gig work is likely a significant aspect of the paper, given the high relevance scores of related terms. The COVID-19 pandemic emerges as a potential target, with terms like "pandemic" and "covid" indicating that the paper may explore how the pandemic has impacted the gig economy. Lastly, the flexibility of work arrangements in the gig economy, as reflected in terms like "flexibility" and "flexible work," may also be a focal point. Privacy and surveillance concerns have also arisen in the gig economy. Platform companies collect vast amounts of data about gig workers, their behaviours, and customer interactions (Sannon et al., 2022). While this data can be used to improve service quality and efficiency, it raises questions about the extent of surveillance, potential misuse of personal information, and the erosion of workers' privacy rights (Kim et al., 2019). Balancing the need for data-driven operations with the protection of workers' privacy poses a significant ethical challenge in the gig economy landscape.

4. Conclusion

The paper's target areas encompass the main topics in gig economics, which underscore the intricate nature of the gig economy and the imperative for effective regulations to address the complex challenges it presents. Collaborative efforts among policymakers, platform operators, and stakeholders are essential in crafting regulatory frameworks that ensure equitable treatment, protect privacy, and promote security for all participants in the gig economy. To ensure a fair and ethical gig economy, it is crucial to implement comprehensive measures. This includes updating labor regulations to encompass gig work, ensuring workers have access to appropriate protections and benefits, promoting transparency in algorithms utilized by gig platforms, and fostering collaboration among stakeholders. Policymakers, businesses, and worker organizations must work together to strike a balance that safeguards workers' rights while maintaining the flexibility that gig work offers.

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