administrative sciences

IMPACT FACTOR 3.0

CITESCORE 4.8

Systematic Review

Systematic Literature Review on Gig Economy: Power Dynamics, Worker Autonomy, and the Role of Social Networks

Gustavo R. Pilatti, Flavio L. Pinheiro and Alessandra A. Montini

Special Issue

Navigating New Horizons in Organization Theory: Emerging Trends and Innovative Perspectives

Edited by

Dr. Erhan Aydin, Dr. Emir Ozeren, Dr. Mushfiqur Rahman and Dr. İnan Eryılmaz

MDPI

https://doi.org/10.3390/admsci14100267

administrative sciences

MDPI

Systematic Review

Systematic Literature Review on Gig Economy: Power Dynamics, Worker Autonomy, and the Role of Social Networks

Gustavo R. Pilatti [1,*], Flavio L. Pinheiro [2] and Alessandra A. Montini [1]

[1] Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, 908, São Paulo 05508-010, Brazil
[2] NOVA Information Management School (NOVA IMS), Universidade Nova de Lisboa, 1070-312 Lisbon, Portugal
* Correspondence: pilatti@usp.com

Abstract: This study explores the dynamics of the collective agency among gig workers in the digital platform economy, focusing on three key research questions. First, it examines power dynamics, worker autonomy, and the role of social networks in mitigating power imbalances imposed by digital platforms. Second, it investigates how algorithmic management affects gig workers' agency and their capacity for collective action. Lastly, it proposes directions for future research to address power imbalances and enhance worker empowerment. Using a systematic literature review (SLR) and bibliometric analysis of 59 scholarly articles, this study reveals that gig workers, despite the control exerted by opaque algorithms, leverage social networks to enhance their autonomy and bargaining power. These networks enable information sharing, negotiation strategies, and collective actions that challenge platform-driven power asymmetries. The study proposes a comprehensive framework illustrating the interplay of economic, technological, social, and regulatory forces affecting gig workers. These insights offer practical implications for policymakers and platform developers aiming to foster a more equitable gig economy. Future research should explore the long-term impacts on worker well-being and assess the effectiveness of regulatory interventions in addressing power imbalances.

Keywords: gig economy; algorithmic management; collective agency; power dynamics; social networks; worker resistance

check for updates

Citation: Pilatti, Gustavo R., Flavio L. Pinheiro, and Alessandra A. Montini. 2024. Systematic Literature Review on Gig Economy: Power Dynamics, Worker Autonomy, and the Role of Social Networks. *Administrative Sciences* 14: 267. https://doi.org/10.3390/admsci14100267

Received: 31 July 2024
Revised: 4 October 2024
Accepted: 13 October 2024
Published: 21 October 2024

Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

1. Introduction

The "on-demand economy" concept has evolved significantly since its initial mention in the scholarly literature. An "on-demand business" leverages technology to swiftly adapt to changes, align with customer demands, and achieve business flexibility through componentization and service orientation (Cherbakov et al. 2005). This early definition indicated the transformative potential of technology in business operations.

The term's meaning evolved considerably after the advent of smartphones and widespread mobile internet access after 2007. These technological advancements catalyzed a shift toward a dynamic economic model characterized by immediate service fulfillment and flexible employment arrangements. By 2016, the concept had diversified into what is now referred to as the "gig economy", "platform economy", or "on-demand economy". This evolution reflects an expansion beyond mere technological facilitation to encompass the economic activities enabled by platforms such as TaskRabbit and Uber, which exemplify the modern on-demand service structure.

Gig or on-demand work involves project-based or short-term employment arranged through online platforms. This shift underscores the nuanced distinctions and substantial evolution from the early 2000s concept of on-demand services to the multifaceted economic and technological phenomena recognized today.

Many organizations increasingly rely on the gig economy for higher business performance and gains in competitive advantage. This paradigm leverages temporary, flexible jobs often facilitated by digital platforms. A stark power imbalance between the workers and the digital platforms often characterizes the platform economy. Workers frequently experience feelings of anger and dependence, as highlighted by Wood et al. (2023), which are compounded by a sense of algorithmic domination where decision making is opaque and skewed toward platform interests (Muldoon and Raekstad 2023). Algorithmic management (or domination) refers to using algorithms and data-driven systems by digital platforms to assign tasks, monitor performance, and make managerial decisions traditionally performed by human managers. However, algorithmic management also has the potential to empower workers by providing flexible work opportunities and the efficient matching of tasks to skills. For instance, algorithms can streamline processes, reduce the biases inherent in human management, offer gig workers a degree of autonomy in choosing when and how they work (Ravenelle 2019), and enhance efficiency and scalability, enabling platforms to match supply and demand rapidly. This dual role of algorithmic management—both a tool of control and an enabler of flexibility—highlights the complex dynamics within the gig economy. Recognizing these contrasting aspects is crucial for comprehensively understanding gig work and workers' strategies to navigate this landscape.

Despite these adversities, there is emerging evidence that gig workers are not passive players in this ecosystem. They actively form social networks and communities that can enhance collective agency (Pilatti et al. 2023). Collective agency is the capacity of individuals to act together towards shared goals, particularly in resisting control mechanisms and advocating for better conditions within the gig economy. These communities are platforms for sharing information, providing mutual support, and coordinating collective actions. Through online forums, social media groups, and informal meetups, gig workers exchange strategies for navigating platform policies, optimizing earnings, and managing customer interactions. The networks enable workers to pool resources, share experiences, and build a sense of solidarity, thereby enhancing their capacity to challenge platform-driven power asymmetries. This burgeoning solidarity among platform laborers is not just a social phenomenon but a potential force for advocating for and achieving more equitable labor practices. Johnston and Land-Kazlauskas (2018) underscore the potential of these networks in promoting effective regulation and ensuring that the voices of gig workers are heard in the broader discourse on labor rights and economic policy.

This article investigates the dynamics of the gig economy through three central research questions:

- Q1: What is currently understood about power structures, worker autonomy, and the function of social networks within the gig economy? This involves analyzing how these networks operate and the support that they provide to gig workers.
- Q2: How does algorithmic management shape gig workers' agency and their capacity for collective action? This question explores algorithms' influence on workers' autonomy, daily experiences, and opportunities for resistance.
- Q3: Where should future research on the gig economy focus to effectively address power imbalances and promote worker empowerment? To answer this, we propose a theoretical framework that identifies how gig workers can utilize their social networks to counteract the systemic power disparities embedded in platform-based labor models.

Previous studies contribute to understanding the dynamics of power and control in the on-demand economy by examining the interplay between gig workers, platforms, and customers, discussing the "shadow employer" role of platforms (the indirect way in which platforms exert employer-like control over workers without formal employment relationships), highlighting how algorithmic management shapes the relationships between workers and clients, often leaving workers to navigate the platform's opaque rules and expectations (Bucher et al. 2021). Similarly, other authors explore the shifting power dynamics in platform settings, where customers sometimes gain temporary control over

workers (Cameron and Rahman 2022). However, this control is based on the platforms' design and intention, which can obscure the actual dynamics of power. These studies collectively suggest that while platforms may decentralize specific controls, they maintain overall power through algorithms that monitor and evaluate worker performance, often relying on customer ratings.

On the other hand, Newlands (2021) elaborates on how workers utilize data obfuscation as a form of resistance against algorithmic surveillance, manipulating the data collected by platforms to alter work conditions favorably. Data obfuscation is a strategy which workers use to intentionally distort or manipulate the data collected by platforms to alter the work conditions or evade surveillance. Bellesia et al. (2023) highlight the nuanced ways in which crowd workers manage algorithmic scores to influence their work identities and opportunities, suggesting that workers are not merely passive recipients of algorithmic decisions but actively engage with these systems to shape their labor outcomes. Moreover, Petriglieri et al. (2019) suggest that gig workers develop holding environments to manage precarious work identities, indicating a form of collective emotional and psychological support that counters the isolating nature of gig work. Holding environments are supportive structures or relationships that help individuals cope with stress and uncertainty, enabling them to maintain a stable sense of self in challenging work contexts. Again, Cameron and Rahman (2022) offer insights into the co-constitution of control and resistance within the gig economy, noting that workers' covert resistance can lead to increased operational costs for platforms, subtly shifting the power dynamics. Social networks often facilitate such resistance where gig workers share tactics for manipulating algorithms, managing ratings, and avoiding penalties. For example, workers might coordinate to collectively rate each other positively or share information about peak demand times and locations. These collective efforts enhance individual and group autonomy, demonstrating how social networks are instrumental in enabling gig workers to navigate and resist algorithmic control.

This body of work underscores the complex and often covert interactions and strategies within the on-demand economy, revealing both the potential for worker agency and the significant challenges that they face under algorithmic management. However, these discussions often focus on the individual strategies within collective frameworks rather than organized collective actions, such as network empowerment or formal worker coalitions, which could shift the power dynamics more significantly. This indicates a research gap regarding a holistic view of the effectiveness of the relations needed among the gig workers and their stakeholders to structure a collective agency in the gig economy.

To address this gap, this paper concentrates on where the fields of labor economics, digital labor practices, and platform economics have common frontiers. The scanty literature on the on-demand economy and algorithm domination has simultaneous grounds on these digital platform labor dynamics. We aim to reassess these sources to investigate the structural dynamics of the collective agency among gig workers, synthesizing the dispersed knowledge from studies on worker and platform engagement in regard to gig labor.

Our study contributes to theory consolidation on the digital platform dynamics by compiling the current literature on algorithmic management and worker resistance, their understanding of the gig economy context, and by conceptualizing a framework for sustained collective agency and worker empowerment from a robust bibliography.

The Method

This study has three goals that are translated from the research questions: first, it examines power dynamics, worker autonomy, and the role of social networks in mitigating the power imbalances imposed by digital platforms. Second, it investigates how algorithmic management affects gig workers' agency and their capacity for collective action. Lastly, it proposes directions for future research to address power imbalances and enhance worker empowerment. To achieve these goals, we established two objectives: firstly, to meticulously identify and catalog information from the literature regarding the interactions between platform laborers and algorithmic management, and secondly, to propose a

theoretical framework or model that analyzes and interprets the potential for sustained collective agency and worker empowerment in light of the documented evidence and theoretical underpinnings.

Recognizing the dispersed and sometimes fragmented nature of knowledge in the gig economy and algorithmic management literature, we note common trends and divergent perspectives. While there is consensus on issues such as platforms exerting significant control over gig workers through algorithmic management and surveillance, leading to constrained agency and feelings of disempowerment, other topics like the fairness of algorithmic management, the reality of entrepreneurship in gig work, and the effectiveness of collective action are presented in varied ways (Meijerink and Keegan 2019; Galière 2020; Ravenelle 2019; Fleming 2017; Wood et al. 2018). Also, we recognize the management literature approaches to these organization ties under diverse theories (e.g., technostress, labor process theory, bureaucratic control, self-determination theory, and entrepreneurship) and with several lenses (e.g., digital technologies impact on working conditions, the role of unions and legal and regulatory reforms) (Cram et al. 2022; Bellesia et al. 2023; Rani and Furrer 2021; Cameron and Rahman 2022; Gandini 2019; Kellogg et al. 2020). Additionally, these theoretical frameworks and associated relationships are intrinsically linked to the management field and are often characterized by specialized terminology that may give rise to seemingly discordant concepts.

To address our objectives, we employed a comprehensive methodological framework. Initially, we conducted a systematic literature review focused on the gig economy's power dynamics, algorithmic management, and labor relations. This approach ensured holistic coverage and the organization of the pertinent literature across interconnected fields. The inclusion criteria focused on studies published in peer-reviewed academic journals from 2009 to 2023, as this timeframe captures the significant rise of the gig economy following the proliferation of smartphones and the mobile internet. We prioritized articles that directly examined the power dynamics, algorithmic management, and collective agency within the gig economy. The exclusion criteria involved discarding articles unrelated to the gig economy or those that primarily discussed topics such as education, business models, and entrepreneurship, which were outside the scope of this review. Additionally, articles without full-text access, those lacking digital object identifiers (DOIs), and those falling outside the defined research domains (e.g., ergonomics or hospitality) were excluded to ensure relevance and quality.

Subsequently, we engaged in a secondary phase of literature exploration. The review followed a structured process involving both bibliometric and content analysis, supported by Python-based tools for network analysis and visual representation. The bibliometric analysis focused on identifying and categorizing articles based on citation networks and impact within the field. Specifically, Python code was employed to map co-citation clusters, allowing for the identification of influential studies and thematic linkages across the 59 selected articles. Topic modeling was used to identify emerging trends, with citation network analysis further providing insight into the relationships between key studies.

The content analysis involved a systematic review of the study outcomes and contexts, focusing on recurring themes related to the power dynamics, worker autonomy, and collective agency in the gig economy. To ensure the robustness of the analysis, articles were manually screened based on their relevance to the gig economy, excluding those that focused on unrelated topics such as entrepreneurship, COVID-19, or education. Sensitivity analyses were conducted to validate the results, including expanding the inclusion criteria to encompass a broader range of publication years and adjusting search keywords to capture studies outside the initial scope. Additional analyses focused exclusively on high-quality studies from the Web of Science to minimize bias and ensure comprehensive coverage of gig work's global dynamics.

To mitigate the potential biases in the study selection, we deliberately focused on high-quality journals indexed in the Web of Science (WOS). However, this decision may introduce selection bias by excluding studies from other reputable databases such as Scopus

or Google Scholar. This bias may limit the geographic scope of the literature, as we filtered the WOS to include only English-written articles. To account for this, we expanded the keyword search to include related terms across various fields, ensuring a broad yet focused scope. Furthermore, sensitivity analyses were conducted to assess these limitations' impact on our findings' robustness.

Ultimately, we synthesized theoretical and practical insights into a structured framework. Our conclusions are formulated based on the objectives, methodologies, theoretical contributions, managerial and societal impacts, constraints, and suggestions for future research.

2. Research Methodology

This theoretical paper is structured in three distinct stages, as illustrated in Figure 1. The initial stage employed a systematic literature review to delineate the concepts that establish the linkages among the gig economy's power dynamics, algorithmic management, worker psychology, and labor relations. This approach aimed to comprehensively encompass and critically analyze the pertinent literature that intertwines these multifaceted topics. In this first stage, bibliometric and content analysis techniques were employed to elucidate the knowledge corpus of these topics and support the proposition of a theoretical framework or model.

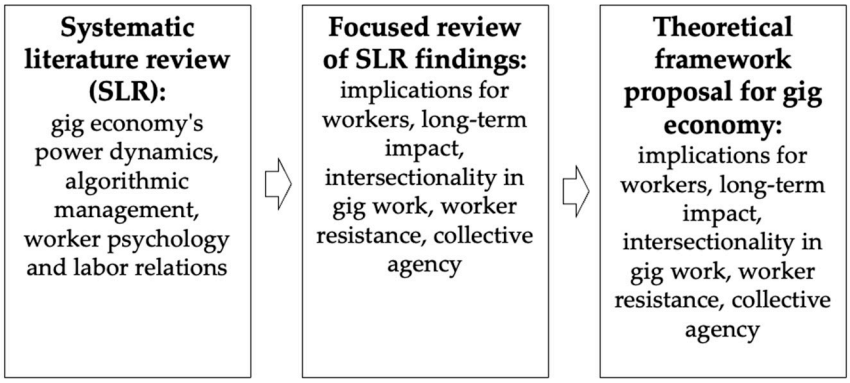

Figure 1. Research stages.

In the second stage, we deeply analyzed the main topics that arose from the SLR. This included exploring the potential positive outcomes of algorithmic management, the long-term impact of on-demand labor on worker well-being and career development, and the intersectionality of gig work. Additionally, emerging trends such as worker resistance, the psychological and emotional dimensions of on-demand work, technological adaptation, and regulatory responses were examined. This two-stage review method allowed us to revisit core concepts, cover a variety of management fields, manage the asymmetry of the inferences within these fields, and compose a theoretical model from the robust literature in the next stage.

In the last stage, we aimed to create a framework that illustrates the complex interplay of the forces driving the connections between the gig worker and each stakeholder, emphasizing the potential for sustained collective agency and worker empowerment. By understanding these relationships and the forces driving them, we can develop strategies to enhance worker empowerment and improve the gig work environment.

Systematic Literature Review Methods

The SLR is a structured method designed to systematically collect, evaluate, and synthesize research evidence on a specific topic. This approach ensures the reliability and reproducibility of the findings. We adopted bibliometric techniques and qualitative structured literature reviews, aligning with contemporary best practices (Oliva et al. 2022; Durach et al. 2017).

The updated process for conducting an SLR in social sciences involves several critical steps (Paul et al. 2021). The systematic literature review (SLR) process involves three main stages: assembling, arranging, and assessing. In the assembling stage, the review domain is defined, specific research questions are formulated, and the inclusion and exclusion criteria for sources are set, prioritizing high-quality, peer-reviewed academic journals identified through databases like the Web of Science (WOS) and Scopus. Comprehensive search strategies are employed to gather relevant literature. The identified literature is systematically organized and critically appraised in the arranging stage to ensure that only the most relevant studies are included. In the assessing stage, the findings are synthesized using appropriate methods, and the synthesis process and results are transparently documented following PRISMA guidelines to ensure the review's validity and reliability. The synthesis process and results are transparently documented, adhering to PRISMA guidelines to ensure the review's validity, reliability, and replicability. The PRISMA flow diagram, presented below in Figure 2, illustrates the detailed steps of the literature identification, screening, eligibility, and inclusion process, including applying the inclusion and exclusion criteria, resulting in the final count of 59 articles selected for analysis.

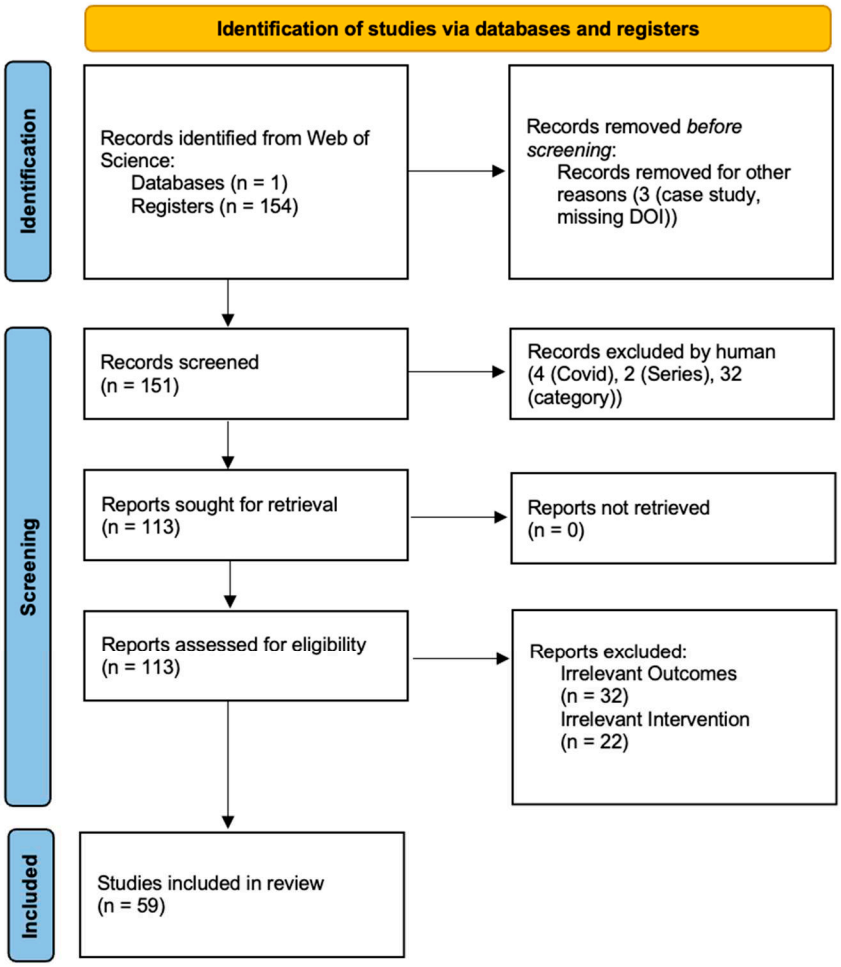

Figure 2. PRISMA flow diagram.

Table 1 summarizes the above method applied in this paper and is explained sequentially. We employed a comprehensive and rigorous approach to ensure the inclusivity and reliability of our review. The domain chosen for this study is Management, Business, and Business Economics. This focus is crucial because the gig economy intersects significantly with these fields, influencing labor dynamics, organizational behavior, and economic models. The on-demand economy has profound implications for management practices and business strategies. Studies have highlighted the relevance of these fields in understanding

the complexities of the gig economy, including power dynamics and worker autonomy (Gandini 2019; Fleming 2017). This choice ensures a comprehensive exploration of how gig work impacts economic structures and business operations, providing a robust foundation for our analysis and framework.

Table 1. The SPAR-4-SLR protocol (Paul et al. 2021) applied to this study.

Stage	Sub-Stage	Criterion	Rationale
Assembling	Identification	Domain	Management, Business and Business Economics
		Research questions	What is known about the power dynamics, worker autonomy, and the role of social networks in the gig economy?
			How does algorithmic management impact gig workers' agency and collective action?
			Where should future research on the gig economy be heading to effectively address power imbalances and enhance worker empowerment through a comprehensive framework?
		Source type	Academic Journals in English
		Source quality	Web of Science (WOS)
	Acquisition	Search mechanism and material acquisition	WOS
		Search period	2009–2023
		Search keywords	Boolean search
		Total number of articles returned from the search	154
Arranging	Organization	Organizing codes	Bibliometric (category, citation network, citations, and reference) and content analysis (study outcomes and context)
	Purification	Article type included/excluded	Article outcomes, missing information, citation network impact, WOS category
		Total number of articles returned from the purification	59
Assessing	Evaluation	Analysis method	Bibliographic modeling, topic modeling, and article content
		Agenda proposal method	Gaps' identification, framework creation, and future research
	Reporting	Reporting	Combination of discussions and chart images

Aiming to answer three key research questions, the article structures the review and analysis of the literature coherently. It addresses:

1. What is known about the power dynamics, worker autonomy, and the role of social networks in the gig economy? This question aims to guide the discovery of the bibliometrics, characteristics, constructs, relationships, and themes in the gig economy labor dynamics domain. It seeks to uncover the current knowledge regarding how power is distributed between digital platforms and gig workers, how worker autonomy is influenced, and the significance of social networks in this context.
2. How is algorithmic management's impact on platform workers' agency and collective action understood? This question aims to explore the theoretical frameworks, empirical contexts, and relations among stakeholders that have been used to understand the influence of algorithmic management on the autonomy and collective agency of gig laborers.
3. Where should future research head to effectively address power imbalances and enhance worker empowerment through a comprehensive framework? This question is designed to identify the current literature gaps and suggest future research directions.

It should also determine how the relations mapped in the literature can be understood in one framework.

This structured approach ensures a thorough exploration of the gig economy's various aspects.

Focusing on academic journals in English indexed in the Web of Science (WOS) provides a reliable basis for this review. The WOS was selected over Scopus, Google Scholar, or other databases due to its comprehensive coverage, high-quality indexing, and stringent peer-review standards, ensuring the reliability and validity of the findings, being a robust and diverse source for conducting systematic literature reviews in social sciences (Paul et al. 2021) and simplifying the management of the articles considered in the study (e.g., avoiding article duplicity). Also, this choice helps mitigate the risk of bias stemming from publication quality and the deduplication work when the literature is retrieved from multiple sources. The data extraction was performed in May 2024.

The selected period from 2009 to 2023 captures the significant rise and evolution of the gig economy, particularly following the proliferation of smartphones and the mobile internet post-2007. This period reflects the transformative impact of technological advancements on economic models and labor practices, as discussed in the article's introduction.

Employing a Boolean search strategy with keywords such as gig economy, domination, gig economic, algorithmic management, gig work, algorithmic control, platform work, gig workers, digital labor, on-demand economy, non-standard employment, power dynamics, worker autonomy, and collective action ensured a wide-ranging capture of the relevant literature. This comprehensive set of keywords covers various aspects of the gig economy and its associated dynamics and provides a wide-ranging capture of the literature, reducing selection bias.

While the selection process aimed to ensure the inclusion of only the most relevant and impactful studies, some limitations should be acknowledged. The restriction to the Web of Science may have introduced a selection bias, potentially excluding relevant research from other databases such as Scopus or Google Scholar, which may cover different geographic regions or publication types and could particularly limit the representation of non-Western perspectives in the analysis, as studies in other languages and from the underrepresented areas may not be indexed in the WOS. Furthermore, focusing solely on peer-reviewed articles could introduce publication bias, as non-peer-reviewed sources (e.g., industry reports or working papers) may offer valuable insights but were not included in this review. To mitigate these risks, we conducted sensitivity analyses by expanding the keyword search to encompass broader and narrower terms and adjusting the Boolean strings. However, further research may benefit from including a more diverse set of sources and databases to capture the global nature of gig work.

The review followed a structured process involving both bibliometric and content analysis, with manual screening of the articles and support from tools such as Python code to build the analysis. The bibliometric analysis included categorizing the articles manually, analyzing citation networks with tools such as Python, and assessing citation impacts.

To conduct the bibliometric analysis, we employed Python, utilizing libraries such as pandas for data manipulation, NetworkX for building and analyzing citation networks, and matplotlib for visualizing the network graphs. Specifically, the Leiden community detection algorithm was used to identify clusters of related articles. This algorithm, implemented via the leidenalg Python package, optimizes modularity, allowing for the accurate detection of thematic clusters within the citation network. The citation network's nodes represent the 59 selected papers, while the edges reflect the shared citations between them, which were normalized and processed using unicodedata to ensure consistency across citation formats.

The citation graph was also visualized using a spring layout, which spaces the nodes based on their connectivity, improving clarity and reducing overlap. Text labels were adjusted using the adjustText package to enhance the readability of node labels further. Community partitions were represented using different node colors to distinguish clusters

of closely related articles visually. All the steps followed to generate the outputs are presented in Algorithm 1 below.

Algorithm 1. Pseudo code for bibliometric analysis process.

Input: Excel file with authors' names and citations references
Output: Normalized bibliometric data and co-citation network
Step 1: Bibliometric Data Collection
Import the bibliometric data from the Excel file.
Step 2: Authors' Name and Citation Reference Normalization
For each paper, normalize the authors' names and citations:
- Remove diacritics
- Convert text to lowercase
- Strip extra spaces

Ensure consistency in citation formatting using the unicodedata library.
Step 3: Remove Articles Without Bibliometric Data
Filter and remove papers missing bibliometric data (e.g., no authors or citations).
Step 4: Co-Citation Relationship Identification
For each paper, extract cited references.
For each reference, identify other papers citing the same reference.
Create edges between papers that share at least one citation.
Build a co-citation network with:
- Nodes = Papers
- Edges = Shared citations.

Step 5: Community Detection with the Leiden Algorithm
Convert the co-citation network into a graph structure.
Apply the Leiden community detection algorithm to find clusters of related papers.
Clusters represent groups of papers that share frequent citations.
Step 6: Graph Visualization
Use a spring layout to position nodes based on connectivity.
Draw the graph with:
- Different colors for each community (clusters).
- Edge thickness reflecting the number of shared citations.

Adjust labels to avoid overlap using the adjustText library.
Step 7: Isolated Node Removal
Remove papers that have no shared citations with others (isolated nodes).
Step 8: Robustness and Sensitivity Checks
Adjust inclusion/exclusion criteria (e.g., citation thresholds, year range).
Rerun the community detection to validate consistency.
Step 9: Final Graph Generation
Generate the final visualization with clusters and labeled nodes.

The content analysis focused on the study outcomes and contexts, using criteria to purify the selected articles. Articles were excluded based on outcomes unrelated to the gig economy (e.g., entrepreneurship, COVID-19, education, gender impact, business models), missing information (e.g., no DOI), citation network impact (e.g., articles without citations or inaccessible), WOS categories (e.g., ergonomic and hospitality), and publication type (e.g., non-article formats). The relevance of each study to the research questions and the specific contexts in which the studies were conducted were considered. Studies which closely aligned with the gig economy's context and addressed the vital themes were rated as having a lower risk of bias. Finally, to ensure the robustness of the synthesized results, several sensitivity analyses were conducted:

- To test the impact of the inclusion criteria on the synthesized results, we conducted a sensitivity analysis by expanding the range of publication years to include studies published before 2009 and adjusting the keywords and Boolean search strings to capture a broader or narrower set of studies.

- To understand the influence of study quality on the synthesized results, we performed an analysis focusing exclusively on high-quality studies with robust study designs and comprehensive peer review status, as indicated by inclusion in the WOS.
- To guarantee that we captured the gig economy's global nature, we analyzed our findings' sensitivity to geographical (e.g., North America, Europe, Asia) and contextual differences, such as diverse types of gig work (e.g., ridesharing vs. delivery services).

Following this rigorous process, 59 articles were selected for detailed review, aligning with the literature that suggests that around 40 articles provide a solid foundation for a systematic literature review (Paul et al. 2021). The analysis employed bibliographic modeling, topic modeling, and content analysis, as detailed in Section 3 of this article, and we examined bibliometric data and identified the key themes. This multifaceted approach ensured a comprehensive understanding of the gig economy's dynamics. Focusing on these high standards and methodological rigor effectively minimized the potential for reporting biases. We ensured the robustness of our synthesized results, providing a comprehensive and balanced view of the current state of research in the gig economy.

Combining textual discussion with visual summaries, such as charts and tables, illustrates the main findings and trends. This combination makes the information accessible and comprehensible, facilitating a clear understanding of the complex relationships and forces in the gig economy.

3. Theoretical Reference

This chapter is structured into three main parts. First, we introduce the systematic literature review methodology, detailing the inclusion criteria and analysis techniques. Next, we present the bibliometric results, including keyword co-occurrence and co-citation network analyses, to identify the key research themes. Throughout this process, content analysis offers contextual interpretations of the identified clusters and themes, providing insights into the gig economy's power dynamics, worker autonomy, and collective agency. Finally, we provide insights regarding the emerging trends and potential gaps in the research.

3.1. Systematic Literature Review on the Gig Economy's Power Dynamics, Algorithmic Management, and Labor Relations

In this section, we present the systematic approach used to review the existing literature on the power dynamics, algorithmic management, and collective agency in the gig economy. The review combines bibliometric analysis with content analysis to provide quantitative and qualitative insights into the field. The bibliometric analysis focuses on mapping citation networks and conducting keyword co-occurrence analysis, revealing how the key topics in the literature are interconnected. Content analysis is embedded within this process to add contextual depth, offering interpretative insights into the relationships between studies and the thematic clusters which they form. These techniques help clarify the discussions on power asymmetries, worker autonomy, and the role of social networks.

3.1.1. Keyword Analysis

The 59 papers contain 338 keywords assigned by the authors and 419 keywords classified by the Web of Science platform, totaling 486 keywords after removing overlaps. Following our keyword analysis, a two-dimensional graph with the co-occurrence of words was created to interpret the distances between the keywords. In Figure 3, each cluster (color) represents a thematic grouping of related keywords that frequently co-occur within the articles, highlighting the central topics or subject areas. These clusters help identify the prevalent research themes and potential interdisciplinary intersections, with node size indicating the keyword frequency to pinpoint the core concepts. The edges between the nodes show how the topics are interconnected, providing a visual map of the research landscape that can reveal the emerging trends, dominant themes, and potential gaps in the

literature. This cluster graph is a powerful tool for mapping out the intellectual terrain of a body of research.

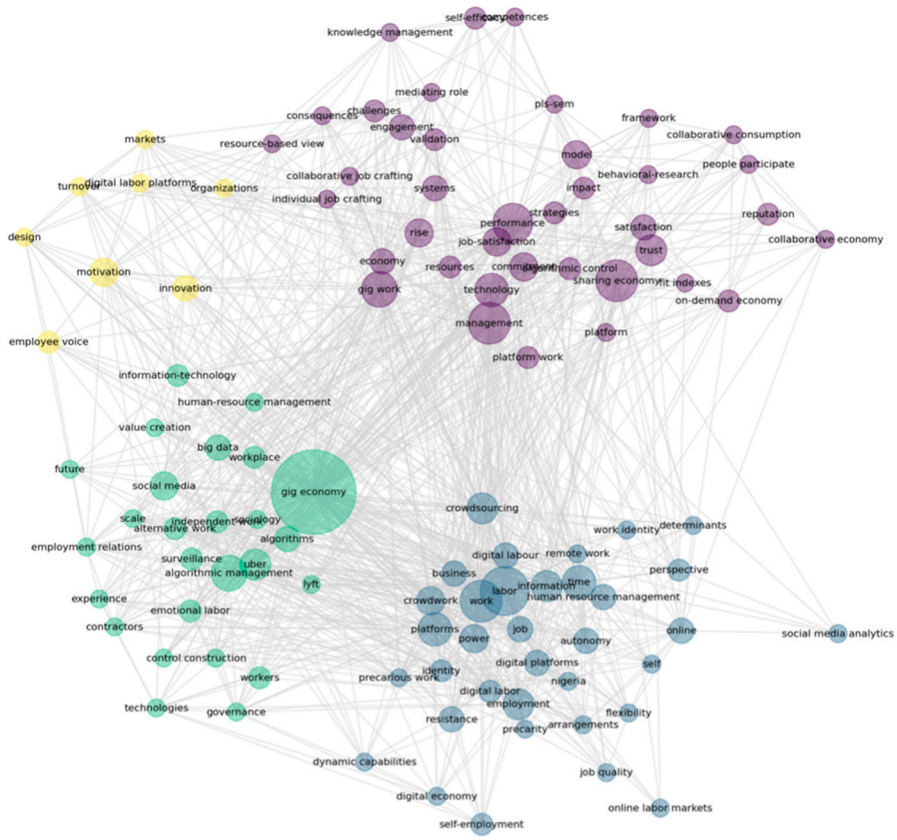

Figure 3. Co-occurrence graph of keywords from the 59 papers.

After defining the clusters, and although the articles from one cluster are not exclusive to that cluster, we may identify some patterns. A first analysis reveals that the articles from the first cluster (yellow) collectively discuss how digital platforms and algorithmic management have deepened power imbalances, influencing worker autonomy and organizational control through the existence or absence of workers' voices. For example, they explore how algorithmic mechanisms can be classified, such as rating, restricting, and recommending, and can limit worker resistance and alter the traditional dynamics of workplace control (Kellogg et al. 2020). Digital platforms utilize algorithmic management to control remote workers, exacerbating power imbalances and reducing worker autonomy while emphasizing the necessity of trust to mitigate these issues (Yao et al. 2022). Furthermore, digital work platforms provide limited, controlled voice mechanisms to crowd workers, ensuring platform control over workflow while restricting worker influence on broader organizational decisions (Gegenhuber et al. 2021). Lastly, power imbalances can influence workers' autonomy and managerial control, leading to fragmented work patterns and limited voice opportunities for workers in non-standard forms of employment (Wilkinson et al. 2021). These discussions highlight the dual nature of technology as a tool for control and an enabler of resistance.

The articles from the second cluster (green) converge on the issue of gig worker behavior under algorithmic control and how gig workers exert agency. They commonly understand that algorithmic management creates significant power asymmetries, compelling workers to adapt their behaviors in response to the complex interplay of control, autonomy, and motivation in gig work. It is underscored by the substantial influence of customer ratings and the persistent economic precarity experienced by gig workers (Wei and MacDonald 2022; Norlander et al. 2021). In this context, algorithmic control means

using algorithms to manage and evaluate worker performance, often resulting in decreased autonomy and increased surveillance. Also, it is highlighted that as workers struggle to maintain viable work identities amidst these challenges, they manage precarious and personalized work identities by creating personal holding environments—structures and relationships—to handle the emotional tensions of their work, transforming precariousness into a tolerable and even generative state (Petriglieri et al. 2019).

Regarding worker resistance and collective agency, the literature underscores that despite the dominant position of platforms, workers find ways to exert agency. They form communities, share knowledge, and develop strategies to counteract some of platform work's restrictive and controlling aspects. This form of resistance helps mitigate the stringent controls imposed by an algorithm (Bucher et al. 2021; Waldkirch et al. 2021). These sources highlight the role of collective action and the sharing of tactical knowledge as critical to navigating and sometimes subverting algorithmic control. These insights highlight a complex interaction between enforced compliance through algorithmic management and emerging resistance patterns. Workers leverage collective strategies to negotiate or challenge the terms of their engagement with digital platforms.

The articles from the third cluster (blue) collectively explore the multifaceted dynamics of the gig economy, emphasizing the profound impact of digital platforms on labor markets and workers' experiences. They reveal a significant power imbalance facilitated by algorithmic control and surveillance, which dictate work conditions and monitor worker behavior, leading to increased precarity (Newlands 2021). The discourse on worker resistance and collective agency is robust across the articles, illustrating the subtle individual tactics and organized collective actions that challenge platform dominance (Anwar and Graham 2021). These discussions also highlight the cultural and social nuances of gig work. Workers are in a transitional state between traditional employment and the gig economy. They craft new identities and support networks within this precarious landscape (Elbanna and Idowu 2022). Collectively, these articles provide a comprehensive view of how digital labor platforms reconfigure work. They offer insights into workers' opportunities and challenges in this evolving sector.

The literature regarding the fourth cluster (purple) reveals the common themes of power imbalances and algorithmic control alongside significant worker resistance and collective agency, highlighting strategies such as the manipulation of ratings, self-leadership, and workarounds as forms of resistance. Also, it brings articles that analyze the internal sharing revolution in companies and business models. Cameron and Rahman (2022) emphasize the co-constitution of control and resistance within platform work, illustrating how workers navigate and resist algorithmic oversight to manipulate ratings and maintain autonomy. Crayne and Newlin (2023) examine the role of worker agency in enhancing productivity and job satisfaction despite the cognitive and physical demands that it imposes and explore self-leadership in rideshare gig work, noting that while some drivers thrive under self-management, others feel compelled to leave due to the high demands and lack of traditional support structures. Sanasi et al. (2020) provide a business model innovation perspective on the sharing economy, categorizing various models and their strategic implications, emphasizing the importance of trust, collaboration, and reputation management. McDonnell et al. (2021) discuss the institutional complexities in HRM practices within gig platforms, where algorithmic controls shape worker experiences. In summary, these articles reveal a shared understanding that while algorithmic control aims to enhance efficiency and performance, it often exacerbates power imbalances and challenges worker satisfaction and trust. Table 2 summarizes all of the above insights from the cluster analysis.

Table 2. Summary table for clusters.

Cluster (Color)	Main Themes	Representative Articles
Yellow	Digital platforms, algorithmic management, power imbalances, worker autonomy, organizational control	Kellogg et al. (2020); Yao et al. (2022); Gegenhuber et al. (2021); Wilkinson et al. (2021)
Green	Gig worker behavior, algorithmic control, worker agency, resistance	Wei and MacDonald (2022); Norlander et al. (2021); Petriglieri et al. (2019); Bucher et al. (2021); Waldkirch et al. (2021)
Blue	Impact of digital platforms on labor markets, worker experiences, gig economy dynamics	Newlands (2021); Anwar and Graham (2021); Elbanna and Idowu (2022)
Purple	Power imbalances, algorithmic control, worker resistance, sharing economy business models, self-leadership, institutional complexities in HRM	Cameron and Rahman (2022); Crayne and Newlin (2023); Sanasi et al. (2020); McDonnell et al. (2021)

In conclusion, while the articles are coherent and collectively provide a comprehensive overview of the gig economy, they may not offer entirely new perspectives. Many findings reiterate established themes:

- Power Imbalance Enforced by Algorithmic Management: Algorithms intensify the power imbalances between platforms and workers.
- Emotional and Psychological Impacts on Workers: Gig work affects workers' emotional well-being and psychological state.
- Various Forms of Resistance: Workers employ different strategies to resist or cope with platform control.

This reiteration consolidates our understanding of the gig economy, reinforcing and validating the previous research findings. The keyword analysis further supports this consolidation by highlighting the prevalent themes and interdisciplinary intersections.

The keyword analysis further reinforces these findings. The analysis also reveals interdisciplinary intersections. For example, studies by Kellogg et al. (2020) and Huang et al. (2019) merge insights from organizational behavior, human resource management, and information systems to discuss how algorithmic mechanisms impact worker autonomy and organizational control. These intersections point to emerging trends and potential gaps in the literature, which we will explore in the next chapter. While this method underscores the existing coherence among the studies, it also emphasizes the depth and complexity of the explored issues.

3.1.2. Author and Citation Analysis

Co-citation networks provide a structured and comprehensive way to identify the key areas of consensus and debate, thereby enhancing the depth and quality of literature reviews. This network analysis enables the identification of clusters of research papers that frequently cite similar sources, suggesting a thematic or conceptual link between them. By mapping these networks, scholars can gain insights into developing research fields, emerging trends, and influential works (Bascur et al. 2023).

The co-citation analysis was performed on the 59 articles from our database using the Leiden algorithm for creating clusters. The Leiden algorithm ensures that communities are connected and that the partitions are of high quality by refining them iteratively. The algorithm's ability to converge to an optimal partition where all subsets of communities are well assigned further enhances its effectiveness in accurately identifying meaningful clusters in the network (Traag et al. 2019).

The first cluster, shown in red in Figure 4, has articles that focus on the transformations in the nature of work brought about by technological advancements and the rise of the gig economy. The common themes include the shift from traditional employment models to more contingent, precarious work arrangements, as explored in Fayard (2021) and critiqued in Fleming (2017). These articles also delve into the implications of these changes for

worker rights and power dynamics, as seen in Wilkinson et al. (2021) and Geissinger et al. (2022), which examine worker mobilization and voice in platform-based work environments. Critical examinations of labor process theory and its relevance to the gig economy, discussed in Chai and Scully (2019), further unify these articles. However, there are divergent views on the role of technology. While some articles highlight its potential to enhance worker autonomy and flexibility, others point out the risks of increased surveillance and control, as seen in Norlander et al. (2021). Despite these differing perspectives, the articles collectively address the evolving work landscape, emphasizing the need for new social and employment protections, as explored in Rolf et al. (2022).

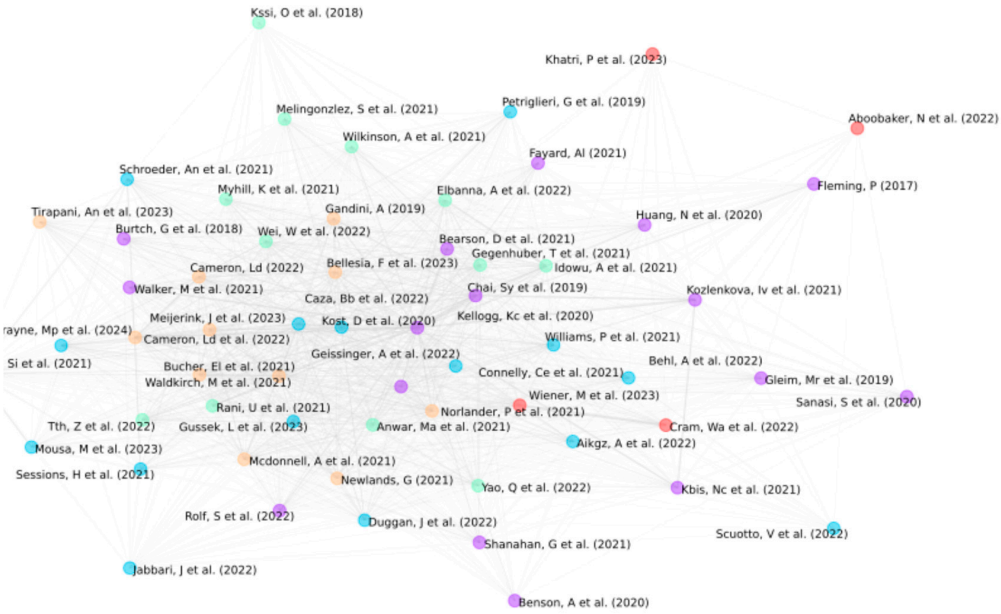

Figure 4. Co-citation network, clustered using the Leiden method.

The second cluster, in purple, provides articles with a multifaceted exploration of the gig economy, focusing on various aspects such as algorithmic control, worker identity, empowerment, and the implications for human resource management. A common theme among these studies is the impact of technology on gig workers, particularly the role of algorithms in shaping work conditions and worker experiences. For instance, Cram et al. (2022) and Wiener et al. (2023) examine how algorithmic management affects Uber drivers, highlighting issues of stress and legitimacy. Another overlapping area is the identity and empowerment of gig workers. Petriglieri et al. (2019) explore how these workers manage their identities in precarious work environments, while Sessions et al. (2021) analyze how side hustles can empower workers and influence their primary job performance. Additionally, articles from Waldkirch et al. (2021) and Gleim et al. (2019) delve into the dynamics of worker perceptions and the dual roles of algorithms and peer-based support in the gig economy. Theoretical perspectives are also well represented, with Behl et al. (2022) and Scuotto et al. (2022) offering frameworks to understand the broader implications of gig work (i.e., a framework for companies to adopt sustainable practices that support gig workers, including providing training, fair compensation, and opportunities for career development).

Focusing on the articles from the last cluster, in green, they particularly emphasize the role of technology and digital platforms in reshaping labor dynamics. The common themes include exploring algorithmic management and its implications for workers (Meijerink and Bondarouk 2023; Newlands 2021). These studies examine how digital management tools exert control while offering some degree of autonomy. Another significant theme is the resistance and response of gig workers to these management practices, highlighted in Cameron and Rahman (2022) and Bucher et al. (2021), which explore how workers

navigate and resist the constraints imposed by digital labor platforms. The quality of gig work and workers' experiences is another critical focus, with Myhill et al. (2021) and Shanahan and Smith (2021) providing empirical insights into fairness, job security, and the psychological contracts between workers and platforms. These articles highlight the disparities between the idealized flexibility of gig work and the often precarious realities faced by workers. Cultural and theoretical perspectives offer nuanced views beyond Western-centric frameworks and critically analyze how neoliberal policies shape labor conditions (Elbanna and Idowu 2022; Tirapani and Willmott 2023; Cherbakov et al. 2005). Despite the differences in focus, the articles collectively enrich the understanding of the gig economy by addressing the systemic issues and individual worker strategies.

In summary, the articles from the first cluster primarily explore the gig economy through empirical studies and theoretical discussions, focusing on the transformation of work, worker rights, and the implications of technological advancements for labor dynamics. The second cluster's articles emphasize the impact of algorithmic control on gig workers, investigating aspects such as technostress, legitimacy, and worker identity, delving deeper into the psychological and social implications of working under algorithmic management. The third cluster broadens the analysis to include the duality of algorithmic management, resistance and control dynamics, and cultural alternatives to Western precarity, offering a mix of empirical and theoretical perspectives on the lived experiences of gig workers, the quality of gig work, and the broader socio-economic implications of platform labor. Despite their different focuses, the articles from all three steps are interconnected. They collectively examine the management, control, and quality of gig work, exploring the tension between promised autonomy and actual surveillance while combining theoretical and empirical insights to understand the gig economy's psychological, social, and economic implications.

Finally, it is possible to conduct another network analysis of the citations: analyze the network formed by citations with their simultaneous presence in the same article to identify conceptual or theoretical linkages. The co-citation network analysis represents the interconnectedness of references across the selected literature. The nodes represent individual citations, while the edges denote co-citations within the same article (a total of 4259 unique nodes and 301,935 edges). This analysis highlights a central cluster of highly referenced works (79 unique nodes), underscoring the consistency and coherence within the literature. However, it also reveals a considerable number of citations referenced in isolation or with low recurrence, supporting the observation that while some themes are widely acknowledged, there is still a breadth of less-integrated research contributing to the field. As this described network has a relative size, the visualization in the printed chart is not worth it.

3.1.3. Emerging Trends and Potential Literature Gaps

While the existing literature provides valuable insights into the specific dimensions of the gig economy, such as the power dynamics, worker autonomy, and the role of social networks, there remains a critical gap in terms of an integrated framework that brings these elements together. The literature tends to explore these aspects in isolation, focusing either on how algorithmic management impacts power imbalances or on how social networks foster worker resistance and autonomy. However, the interplay between these dynamics remains underexplored. Without a comprehensive framework that synthesizes these elements, our understanding of the collective agency of gig workers, especially how they leverage social networks to counteract power imbalances and algorithmic control, remains fragmented. This gap calls for developing a holistic approach that integrates these critical aspects, providing a more complete picture of the mechanisms that shape the gig economy.

The existing body of literature on the gig economy and algorithmic management extensively discusses the negative implications for workers, mainly focusing on power imbalances, precarious work conditions, and the psychological toll of such environments.

However, notable gaps warrant further exploration to provide a more balanced and comprehensive understanding of the gig economy.

One significant gap in the literature is the lack of emphasis on the potential positive outcomes of algorithmic management. While much of the current research highlights how algorithmic control can disempower workers, there needs to be more discussion on how these same technologies might also create opportunities for skill development and entrepreneurship. For example, Ravenelle (2019) suggests that platforms can foster entrepreneurial skills among workers by providing flexible opportunities to engage in various forms of work. Additionally, algorithmic management allows for scaling employment and managing thousands of workers, a feat that traditional management methods cannot achieve efficiently. While algorithms may occasionally commit mistakes, these errors are measurable and can be addressed. In contrast, human managers' decisions, especially in people management, are more challenging to quantify and often subjected to unconscious biases. This perspective, which offers a more positive outlook on the future of gig work, still needs to be explored, and empirical studies could benefit from investigating how gig workers develop entrepreneurial competencies through platform work.

Another critical area that needs more attention is the long-term impact of on-demand labor on worker well-being and career development. Most studies focus on gig work's immediate and short-term effects, such as job satisfaction, income volatility, and stress levels. However, there is a lack of research examining how prolonged engagement in gig work influences long-term career trajectories, skill acquisition, and overall life satisfaction. Furthermore, there is a notable lack of discussion regarding the retirement plans for gig workers. As the gig economy grows, it becomes imperative to consider how companies and governments should adopt rules to ensure financial security for these workers upon retirement. This topic is particularly crucial for low-skilled workers who may lack financial education and planning resources. Understanding these long-term effects is critical in developing policies and interventions that support gig workers in building sustainable careers, and it is a matter of concern that should be addressed with empathy.

Additionally, there is a need for more nuanced research that considers intersectionality in gig work. While some studies acknowledge the diverse experiences of gig workers based on factors such as gender, race, and socio-economic status, there is limited comprehensive analysis that integrates these intersecting identities into the broader narrative of gig economy research. Exploring how these factors intersect to impact worker experiences and outcomes would provide a more detailed understanding of the challenges and opportunities within the gig economy. Moreover, the lack of work connections and their psychological impacts should be explored further to understand how isolation affects gig workers' mental health and overall job satisfaction.

As the gig economy evolves, so does the focus of scholarly research. The emerging trends identified through the keyword analysis and recent studies highlight several areas which are gaining traction within academic discourse. One notable trend is the increasing emphasis on worker resistance and collective agency. The traditional views of gig workers often portray them as passive recipients of platform dictates, subject to the whims of algorithmic management. However, recent studies like those by Bucher et al. (2021) and Bellesia et al. (2023) paint a different picture. These researchers highlight how gig workers actively use strategies to counteract platform controls, such as manipulating ratings, forming support networks, and engaging in collective bargaining. This shift in focus underscores the agency of gig workers and their capacity to influence their working conditions despite the challenges posed by algorithmic management.

Another emerging trend is the focus on the psychological and emotional dimensions of gig work. The gig economy's inherent precarity and the isolating nature of platform-based work have significant emotional and psychological impacts on workers. Petriglieri et al. (2019) discuss how gig workers create "holding environments"—supportive structures and relationships that help them manage the emotional tensions of precarious work. This concept is gaining traction as researchers increasingly recognize the importance of mental

health and emotional well-being in gig work. Studies are beginning to explore how these holding environments function, their effectiveness, and their impact on worker resilience and job satisfaction.

There is also a growing interest in how gig workers adapt to technological changes and develop new skills. As platforms continuously evolve, workers must keep pace with new technologies and changing work demands. This area of research explores how gig workers acquire and refine skills, the role of platforms in facilitating or hindering this process, and the implications for worker empowerment and career development. Understanding these dynamics is crucial for designing interventions that support continuous learning and skill enhancement in the platform economy.

Emerging research also focuses on regulatory responses and policy development to improve gig workers' conditions. With increasing recognition of the challenges which gig workers face, there is a growing body of work examining how different regions and countries address these issues through policy and regulation (Rolf et al. 2022; Duggan et al. 2020; Kellogg et al. 2020). Researchers are exploring the effectiveness of existing labor laws, the introduction of new protections for gig workers, and the role of advocacy groups in shaping policy. Such studies are essential for informing policymakers and stakeholders on best practices and innovative approaches to safeguarding gig workers' rights. Notably, none of the articles specifically delve into the over-regulation of the gig economy and its potential to lead to increased informality.

The discussion above highlights the emerging trends in gig economy research and critical gaps that require further exploration. Despite the extensive research into power dynamics, algorithmic control, and worker autonomy, the literature often treats these elements in isolation, leaving space for an integrated framework. Moreover, gaps remain in areas such as the positive outcomes of algorithmic management, long-term career impacts, and the need for intersectional analysis. To provide a clearer understanding of these areas, Table 3 summarizes the key emerging trends and potential literature gaps that must be addressed to advance the research and policy development in the gig economy that have been discussed in this section.

Table 3. Emerging trends and key gaps in the gig economy literature.

Topic	Is It Addressed (Focus) in the Current Article?
Emerging Trends	
Worker Resistance and Collective Agency: Increasing focus on how gig workers use strategies like rating manipulation, forming support networks, and engaging in collective bargaining to counteract platform control.	Yes. We highlight the gig workers' social networks and how they might use strategies to resist platform control and gain autonomy.
Psychological and Emotional Dimensions: Growing recognition of the mental health impacts of gig work, including how workers create "holding environments" for emotional support.	Partially. The article discusses how gig workers manage the emotional and psychological impacts of precarious work by forming "holding environments" or supportive structures to cope with the stresses of gig work. However, more detailed empirical research could be beneficial in examining how these holding environments function and their effectiveness in fostering long-term worker resilience.
Technological Adaptation and Skill Development: Exploring how gig workers adapt to the evolving technologies and develop new skills through platform work.	No.
Regulatory Responses and Policy Development: Focus on how regions and countries address gig worker conditions through policy and labor law reforms.	No.

Table 3. *Cont.*

Topic	Is It Addressed (Focus) in the Current Article?
Potential Literature Gaps	
Absence of a Holistic Framework: The literature lacks an integrated framework that connects power dynamics, worker autonomy, and social networks, leaving the interplay between these elements underexplored.	Yes. We aim to fill this gap by developing a comprehensive framework integrating power dynamics, worker autonomy, and social networks. The focus is on creating a holistic approach.
Lack of Research on the Positive Outcomes of Algorithmic Management: The current focus is on disempowerment, with limited discussion on how platforms may foster entrepreneurship or skill development.	Partially. We touch on worker resistance but lack emphasis on how algorithmic management could foster entrepreneurship or skills.
Long-Term Impact on Well-being and Career Development: Insufficient research on how prolonged gig work affects long-term career trajectories, skill acquisition, and life satisfaction.	Partially. We discuss the psychological impacts but focus less on long-term career trajectories or skill acquisition.
Lack of Intersectional Analysis: Limited comprehensive analysis integrating the diverse experiences of gig workers based on gender, race, and socio-economic status into the broader gig economy research.	No.
Retirement Plans for Gig Workers: Absence of discussions on how gig workers, especially low-skilled workers, can ensure financial security for retirement.	No.

4. Discussion

The intersection of knowledge from the evaluated studies allows us to infer findings on the dynamics of power, worker autonomy, and the role of social networks in the gig economy, where it is possible to answer our research questions and extend the previous research on algorithmic management and worker agency, concatenating the available scattered literature. Table 4 below summarizes the literature review process findings that answer our previous research questions and provides the raw material for further discussion.

The analysis of the gig economy, based on the literature review, uncovers several critical insights that can be effectively organized into four key themes: power imbalances and algorithmic control, collective agency, and worker empowerment, the role of regulatory bodies, and technological and social forces. These topics provide a structured framework for understanding the dynamics and challenges faced by gig workers and offer pathways to enhance worker empowerment and collective agency.

- Power imbalances and algorithmic control: Platforms wield significant power over gig workers through algorithmic management, leading to reduced autonomy and increased job insecurity. This control manifests through task assignments, performance evaluations, and surveillance mechanisms. Authors such as Kellogg et al. (2020) delve into how algorithmic management allows platforms to control workers by limiting their autonomy through individual performance evaluations and task assignments. In contrast, this study highlights how gig workers collectively counteract these power asymmetries.
- Collective agency and worker empowerment: Despite platforms' overarching control, gig workers actively engage in resistance and collective strategies. Forming communities or networks, sharing knowledge, and collective bargaining are pivotal in enhancing their bargaining power and working conditions. The mechanisms that drive the collective action among gig workers are multifaceted, relying heavily on the informal social networks that form within platform ecosystems. These networks serve as conduits for the dissemination of tactical knowledge, such as methods for managing customer ratings, navigating platform policies, and organizing collective bargaining. For instance, Mechanical Turk workers have formed an online forum to

assist individuals in navigating their 'career' on a platform and facilitate collective action (Johnston and Land-Kazlauskas 2018). These social networks facilitate both overt and covert forms of resistance, ranging from data obfuscation techniques to organized strikes aimed at disrupting platform operations

- Role of regulatory bodies: Effective regulation is essential for protecting gig workers' rights and ensuring fair labor practices. Policymakers need to develop regulations that address job security, income stability, and worker protections tailored to the unique challenges of gig work. However, overly stringent regulations can have negative consequences, including increased informal work.
- Technological and social forces: The interplay between technological advancements and social dynamics significantly shapes the gig economy. Platforms use technology to manage and control workers, while workers leverage technology to connect, organize, and resist. Social forces, including cultural perceptions and community support, also play a critical role in shaping worker experiences and outcomes, creating supportive "holding environments" to navigate the emotional tensions created by precarious work.

Table 4. Literature review summary findings—answers to research questions.

Research Question	Answer
Q1. What is known about the power dynamics, worker autonomy, and the role of social networks in the gig economy?	The power dynamics in the gig economy are characterized by significant imbalances, where platforms exert control through algorithmic management, often leading to reduced autonomy for workers. However, gig workers form social networks that act as mechanisms of resistance, enhancing collective agency and autonomy. These networks enable the sharing of information, negotiation strategies, and collective actions that counteract the control exerted by platforms and challenge the established power structures. Social networks thus play a critical role in promoting worker empowerment and addressing the power asymmetries in gig work.
Q2. How does algorithmic management impact gig workers' agency and collective action?	Algorithmic management significantly shapes gig workers' behaviors and psychological experiences by creating an environment of surveillance and control that often limits worker autonomy. Algorithms assign tasks, evaluate performance, and regulate access to work, which can lead to feelings of disempowerment and economic precarity. Psychologically, gig workers may experience stress, frustration, and anxiety due to the unpredictable nature of algorithmic decision making. However, the article highlights that workers are not passive in response to these pressures. Many develop coping mechanisms, such as creating personal "holding environments"—supportive structures that help them manage emotional tensions. Furthermore, workers engage in forms of covert resistance, including data manipulation, rating management, and collective action through social networks. These psychological strategies enable gig workers to reclaim some degree of agency, maintain viable work identities, and foster resilience despite the control exerted by algorithmic management. Collective action, bolstered by shared experiences of algorithmic pressure, allows workers to develop solidarity and challenge the system collectively. Thus, while algorithmic management imposes significant constraints, gig workers use individual and collective psychological and behavioral strategies to navigate and resist these controls.
Q3. Where should future research on the gig economy be heading to effectively address power imbalances and enhance worker empowerment through a comprehensive framework?	Future research should explore the long-term effects of gig work on career development and worker well-being, investigate the potential positive aspects of algorithmic management, and delve into how intersectionality affects worker experiences in the gig economy. Additionally, studies should consider how regulatory frameworks can be designed to protect worker rights without exacerbating the informality in the sector. A comprehensive framework that integrates economic, technological, social, and regulatory forces can help develop strategies to empower gig workers more effectively.

Our literature review identified a significant gap regarding integrating the power dynamics, worker autonomy, and social networks within a holistic framework. While previous studies have explored these elements individually, their interplay remains underexamined without connecting all the stakeholders presented in the gig economy. Our study fills this gap by proposing a comprehensive theoretical framework synthesizing these critical components. The proposed theoretical framework for analyzing sustained collective agency and worker empowerment in the gig economy focuses on the intricate web of relationships between gig workers and key stakeholders—platforms, customers, other workers, and regulatory bodies. This framework, detailed in Table 5 and summarized in Figure 5 categorizes the driving forces into economic, technological, social, and regulatory domains. For instance, economic forces include the financial incentives and job availability driven by platforms through algorithmic task assignments and payment structures. Technological forces encompass the use of algorithms for surveillance and control by platforms, while social forces involve the role of community support among gig workers. Regulatory forces cover labor laws and policies impacting job security and conditions. By understanding these relationships, we can develop strategies to enhance worker empowerment and improve the gig work environment.

Table 5. Framework: driving forces in the gig economy.

Forces		Platforms (Algorithmic Management)	Customers	Other Gig Workers (Community)	Regulatory Bodies
Economic	Incoming	Platforms drive economic incentives and job availability through algorithmic task assignments and payment structures.	Customers provide financial compensation and demand services.	Collective bargaining and shared resources reduce individual costs.	Regulations and labor laws determine minimum wage and protections.
	Outgoing	Gig workers' performance and availability directly influence platform metrics and profitability.	The quality of service and customer satisfaction impact repeat business and tips.	The participation in community efforts can influence overall market rates and conditions.	Workers' economic struggles drive the advocacy for better policies and benefits.
Technological	Incoming	Platforms use algorithms for surveillance and control, affecting work availability and conditions.	Customer reviews and ratings impact workers' algorithmic scores and future job opportunities.	Technology facilitates the communication and organization among workers.	Technological regulations impact the development and deployment of gig platforms.
	Outgoing	Worker data and feedback influence algorithmic adjustments and platform policies	Workers' adherence to technological tools and communication platforms enhances the customer experience.	Workers contribute to online forums and support networks, enhancing collective knowledge.	Workers' use of technology can advocate for improved digital labor rights and protections.
Social	Incoming	Platform policies and culture shape workers' social interactions and norms.	Customer interactions and expectations shape social norms and worker conduct.	Peer support and collective identity strengthen social bonds and resilience.	Social policies and public opinion influence regulatory actions and worker protections.
	Outgoing	Workers' social behaviors and compliance affect platform reputation and user trust.	Workers' professionalism and service quality influence customer perceptions and social feedback.	Workers' active participation in social movements can drive community cohesion and advocacy.	Workers' social activism and participation in public discourse drive regulatory change and awareness.
Regulatory	Incoming	Compliance with labor laws and platform regulations impacts job security and conditions.	Consumer protection laws and regulations impact service standards and worker obligations.	The legal recognition of worker organizations enhances collective bargaining power.	Labor regulations and protections define workers' rights and benefits.
	Outgoing	Workers' adherence to and feedback on regulations influence platform adjustments and legal compliance.	Workers' compliance with regulatory standards ensures customer trust and legal operation.	Workers' legal actions and collective agreements influence broader industry standards and policies.	Workers' advocacy and participation in policy development shape future regulations and labor laws.

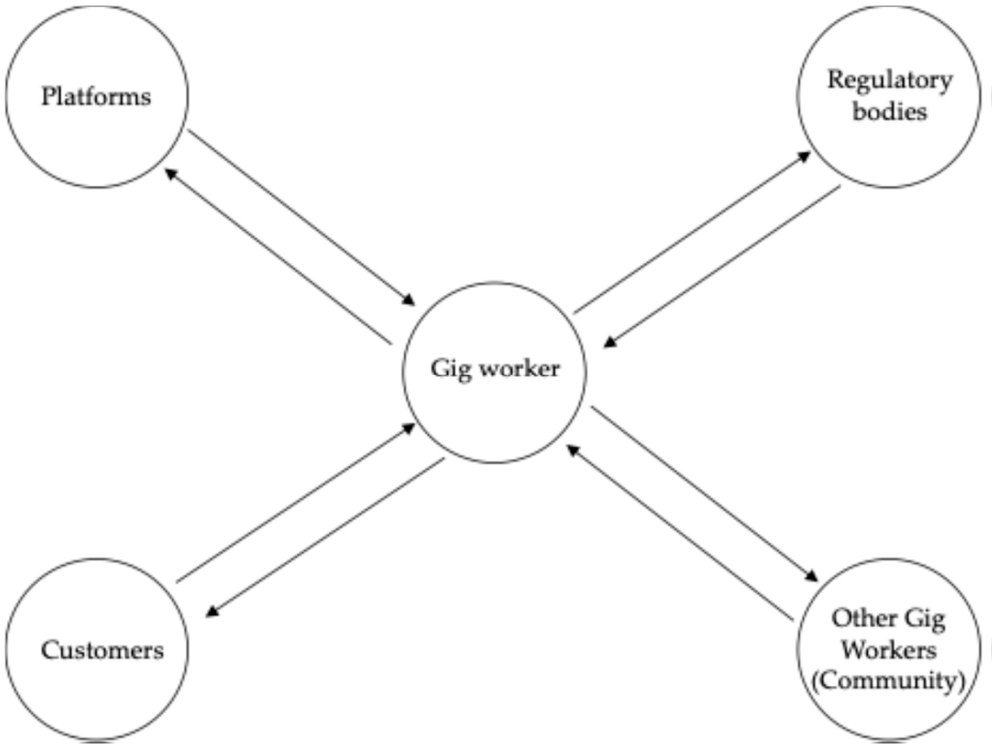

Figure 5. Main gig worker stakeholders and forces directions.

This framework contributes to the broader field of gig economy research by providing a structured analysis of the relationships and forces that drive gig work dynamics. It offers insights into the potential for sustained collective agency and worker empowerment, highlighting the importance of understanding the multifaceted interactions between gig workers and their stakeholders. Also, this research not only fills the gap regarding collective action found in the literature but also expands the theoretical framework to assess how social networks mitigate algorithmic control across various platform types. While the existing models primarily address the impact of algorithmic management on individual autonomy (e.g., Bucher et al. (2021)), they often focus on isolated, individual strategies for resisting platform power, such as rating management or data obfuscation. Our framework uniquely synthesizes the role of social networks in addressing algorithmic control and promoting collective action. Our framework differs by emphasizing how workers utilize informal networks to resist platform power and develop resilient cooperation systems, a dimension previously underexplored in the literature. This integration of informal social networks as a central mechanism for worker empowerment forms the crux of our contribution to understanding the collective agency in the gig economy.

In light of the comprehensive framework discussed, it is evident that a strong network among gig workers can significantly enhance the effectiveness of these forces by creating empowerment and collective agency, which in turn enhance key economic, technological, social, and regulatory forces. Economically, it can improve collective bargaining and reduce individual costs. Technologically, it facilitates better communication and knowledge sharing. Socially, it strengthens peer support and community cohesion while amplifying advocacy efforts. Regulatory-wise, it can push for legal recognition and influence industry standards. These enhanced forces align with the article's aim to understand and improve worker empowerment and collective agency.

The study underscores the need for continued research on the long-term impacts of gig work, the role of technology in shaping labor relations, and the effectiveness of regulatory interventions. By integrating the findings from diverse studies, this framework provides a comprehensive perspective that can inform future research and policy development.

We present Table 6 below to explicitly demonstrate how our theoretical framework addresses each of our research questions. This table outlines the framework components relevant to each question and explains how they contribute to understanding and answering the questions. By mapping the research questions to our theoretical framework, we illustrate how the interplay of these forces contributes to the dynamics of the gig economy.

Table 6. Integration of theoretical framework with research questions.

Research Question	Theoretical Framework Components	Explanation of How the Framework Addresses each Question
Q1. What is currently understood about the power structures, worker autonomy, and the function of social networks within the gig economy?	- Economic - Technological - Social - Regulatory	- Economic Forces: platforms use financial incentives to influence gig workers, affecting their autonomy. - Technological Forces: algorithmic management by platforms controls work processes and evaluates performance, shaping power dynamics. - Social Forces: gig workers form social networks to share information and strategies, enhancing autonomy and resisting control. - Regulatory Forces: labor laws and policies impact power structures by defining worker rights and protections.
Q2. How does algorithmic management shape gig workers' agency and their capacity for collective action?	- Technological - Social	- Technological Forces: algorithmic management limits worker agency through task assignments, surveillance, and performance metrics. - Social Forces: gig workers utilize social networks to coordinate resistance, share coping strategies, and organize collective actions, thereby reclaiming agency.
Q3. Where should future research on the gig economy focus to effectively address power imbalances and promote worker empowerment?	- Regulatory - Social - Integration of All Forces	- Regulatory Forces: future research should explore how policy interventions can protect gig workers and redefine labor classifications. - Social Forces: investigate how strengthening social networks can enhance collective bargaining and support mechanisms. - Integration of All Forces: a holistic approach considering economic, technological, social, and regulatory factors is necessary to develop effective strategies for worker empowerment.

4.1. Practical Implication

The findings of this study underscore the need for targeted actions to improve the gig economy's structure and address the power imbalances that negatively affect gig workers. Platforms should prioritize transparency in their governance, particularly regarding how algorithms influence task assignments, performance evaluations, and income calculations. Given that many of these algorithms are based on complex machine learning models, it is essential that the information is presented in a way that is easy for workers to understand and engage with. Clear, accessible explanations can help demystify these processes, mitigating the disempowerment that arises from opaque decision-making systems. Moreover, platforms should develop feedback mechanisms that allow workers to influence algorithmic adjustments based on their experiences, fostering trust and improving platform–worker relations. Additionally, platforms must reassess rating systems to ensure that they equitably reflect worker performance, reducing the disproportionate impact of isolated negative customer interactions.

To address the precarious nature of gig work, informal social networks that workers already rely on should be formalized into more structured organizations, such as worker cooperatives, unions, or even platform-supported networks. These communities would be pivotal in advocating for better working conditions, fair wages, and legal protections. Platforms can also contribute to this effort by offering technology and tools that facilitate

the communication and collaboration among workers, fostering a sense of community and shared purpose. Additionally, platforms should expand the opportunities for skill development, enabling workers to enhance their marketability and explore entrepreneurial opportunities beyond the confines of the platform economy. This collaborative approach would empower workers and promote more sustainable and equitable working relationships within the gig economy.

Policymakers play a crucial role in developing regulatory frameworks that protect workers while preserving the flexibility that characterizes platform work. Legal protections, such as minimum wage guarantees, access to health benefits, and retirement planning, must be introduced without compromising the autonomy that workers value. Additionally, workers should have access to formal mechanisms for dispute resolution and collective representation to further address the power imbalances between them and platforms. These policy interventions are essential for creating a more equitable and sustainable gig economy, balancing the need for flexibility with protecting workers' rights.

4.2. Research Limitations

Despite the comprehensive approach undertaken, this study is subject to several limitations. First, the systematic literature review (SLR) method, while thorough, inherently limited the scope of the analysis to the existing scholarly articles published in specific indexed journals such as the Web of Science. This exclusion of industry reports, gig workers' testimonials, and non-peer-reviewed articles mean that the study may not capture the most recent or practical insights from the gig economy itself, especially from workers' lived experiences. Consequently, the specific nuances of power dynamics, such as informal resistance strategies or emergent patterns of platform behavior, may not be fully represented.

Another limitation pertains to the bibliometric analysis. Although it offers a valuable overview of the citation networks and scholarly trends, the method relies heavily on the influence and reach of previous studies, which may result in an unintentional bias toward well-established themes, while newer, less-cited topics could be overlooked. Moreover, language restrictions—focusing only on English publications—exclude potentially relevant research in other languages, limiting the geographical diversity of the findings.

Regarding the methodology, the research synthesized various theoretical frameworks from labor economics, organizational theory, and digital labor practices, which are often applied differently across disciplines. As such, there may be a conceptual discord in how terms like "worker autonomy" or "collective action" are interpreted, particularly concerning algorithmic management. The study's findings, while robust in synthesizing these theories, might require careful contextualization when applied to specific platform types or geographic regions, especially those with different labor market structures.

The study acknowledges a data gap in the longitudinal assessments of the gig economy. Most of the literature focuses on the short-term impacts of platform work, with limited insight into the long-term effects on worker well-being, skill development, and career progression. Future research could benefit from empirical studies tracking gig workers over an extended period to better understand how these factors evolve.

While our findings suggest that social networks empower gig workers by facilitating collective action, it is essential to consider alternative explanations. For instance, the extent of this empowerment may be influenced by the platform's degree of algorithmic control, which varies across regions and industries. Furthermore, we acknowledge that our focus on informal networks may not fully capture how regional labor regulations shape worker autonomy and agency in different gig economy settings.

Lastly, the gig economy is not monolithic. It encompasses diverse types of workers, each with unique motivations, levels of autonomy, and susceptibility to algorithmic control. These variations significantly influence the dynamics of power and resistance, creating differences in how workers experience platform control and how effectively they can resist or assert collective agency. The diverse experiences of full-time, part-time, high-skill, and low-skill workers highlight the complexity of the collective agency within the gig economy.

While low-skill workers may rely on informal networks to resist algorithmic control, high-skill workers often have more structured forms of professional support. This variation suggests that the collective action in the gig economy is not uniform; instead, it is shaped by workers' differing levels of power, autonomy, and dependence on platform labor.

4.3. Future Research

Building on the findings and limitations of this study, several critical areas for future research have emerged that would deepen our understanding of the gig economy and its evolving dynamics.

First, future research should explore the intersectionality of gig work, considering factors such as gender, race, and socio-economic status while examining the long-term effects of gig work on career development and well-being through longitudinal studies. These studies could assess how different demographic groups experience algorithmic management, social networks, and collective agency, offering a more nuanced understanding of the gig economy's diverse workforce. Additionally, empirical studies should investigate the effectiveness of the different regulatory approaches across various geographic and economic contexts, focusing on balancing labor protection and maintaining the flexibility that characterizes gig work.

Furthermore, it is essential to examine algorithmic management not only as a source of domination but also in contrast to the traditional management practices. Future research could investigate its potential to scale operations efficiently, reduce human bias, and foster opportunities for skill development and entrepreneurship, particularly for workers who may otherwise face barriers to entry in the traditional employment structures. This includes exploring how algorithmic systems promote fairness and transparency in worker evaluations, task distribution, and compensation.

In addition, future studies should delve into the role of informal social networks that gig workers form and how these networks contribute to worker empowerment and resistance against platform control. Researchers could explore how these networks vary across the different types of platforms, industries, and regions and whether they can evolve into more formalized structures capable of influencing policy or platform governance. Investigating the role of technology in these networks, particularly how digital tools facilitate collaboration, knowledge sharing, and collective bargaining, would also provide valuable insights.

Moreover, the psychological and emotional dimensions of gig work, including the impact of algorithmic surveillance on worker well-being, warrant deeper exploration. Future research could focus on how gig workers create and sustain "holding environments" to cope with the stresses of precarious work, as well as the potential interventions that platforms or policymakers could introduce to mitigate these challenges.

In addition to these thematic areas, there are critical methodological, data, and scope considerations for future research. One promising avenue lies in the integration of mixed methods. While this study primarily relied on a systematic literature review (SLR) and bibliometric analysis, future research could benefit from qualitative approaches, such as interviews and ethnographic studies, to capture the lived experiences of gig workers, particularly concerning informal social networks and worker autonomy. These methods would provide richer, more contextualized insights into the human dimensions of gig work that are often missed in large-scale quantitative studies.

Longitudinal data collection is another key area for improvement. By employing real-time tracking and panel studies, researchers could observe how gig workers' careers, income stability, and well-being evolve over time. This would allow for a more comprehensive understanding of the long-term effects of platform labor. Access to platform-provided data, such as task allocation and earnings distribution, combined with worker-reported data, would further offer a holistic view of the gig work ecosystem. Collaborating with platforms to access anonymized data would enable researchers to analyze how algorithmic management dynamically interacts with worker behaviors and outcomes.

Moreover, future research should broaden its geographical focus to include more diverse global contexts. Much of the current literature is concentrated in North America and Europe, but gig economies in emerging markets may operate under different regulatory, cultural, and technological conditions. Examining how gig work unfolds in regions such as Southeast Asia, Africa, and Latin America would shed light on how local economic contexts and cultural norms shape worker autonomy, collective action, and platform regulation.

Finally, future research would benefit from cross-disciplinary approaches that bridge insights from labor economics, digital anthropology, and data science. By synthesizing these fields, researchers can create more robust frameworks for understanding how platform labor shapes worker experiences and outcomes across economic, technological, and social dimensions.

By addressing these areas, scholars can develop strategies to enhance both the working conditions and empowerment of gig workers, contributing to a more equitable and sustainable future for the platform-based labor market.

5. Conclusions

In this systematic review, we examined the dynamics of the collective agency among gig workers within the digital platform economy, focusing on the role of social networks in mitigating power imbalances created by algorithmic management. The findings of this study contribute to a growing body of literature on the power dynamics and resistance in the gig economy. By comparing these results to previous studies, we can better understand how gig workers leverage social networks and collective agency to counteract algorithmic control and platform-driven power asymmetries. Building upon this understanding, our study not only supports the existing research on gig workers' strategies for navigating algorithmic management but also offers new insights into how social networks facilitate collective agency.

By situating our findings within the broader literature, we show that gig workers are not merely reactive to platform control; instead, they actively shape their work environments through organized resistance, thereby suggesting new avenues for research on the collective empowerment in the gig economy. Despite the significant control exerted by gig platforms through opaque algorithms, gig workers have demonstrated resilience by forming robust social networks. These networks act as resistance and collective bargaining mechanisms, enabling workers to share information, develop negotiation strategies, and challenge the prevailing power asymmetries. Therefore, this collective agency is crucial in counteracting algorithmic domination and fostering a sense of empowerment among gig workers.

To encapsulate these dynamics, the comprehensive analysis presented in this review offers a theoretical framework for understanding the structural dynamics of the collective agency in the gig economy. This framework emphasizes the interplay between economic, technological, social, and regulatory forces, providing insights into the potential for sustained worker empowerment.

Therefore, this study contributes to the theoretical consolidation of the digital platform dynamics by offering a comprehensive framework for understanding the collective agency and worker empowerment in the gig economy. Furthermore, it provides practical insights for enhancing worker empowerment in an increasingly platform-mediated world. The framework can inform future research and policy development, fostering a deeper understanding of digital labor practices and their implications for workers.

To achieve these insights, our research methodology involved a rigorous systematic literature review (SLR) complemented by bibliometric and content analysis techniques. Adhering to the PRISMA guidelines ensured a transparent and reproducible approach, meticulously identifying and cataloging the relevant literature on power dynamics, algorithmic management, and labor relations within the gig economy. The practical implications of our findings include the need for policymakers to develop regulations that ensure that fair labor practices are adapted to the new technological landscape. Platform companies

should consider incorporating feedback mechanisms that enhance transparency and allow workers to influence platform policies. Additionally, gig workers can benefit from forming solid networks and communities that provide support and collective bargaining power.

Looking ahead, future research should explore the intersectionality of gig work, considering factors such as gender, race, and socio-economic status. Moreover, examining the long-term effects of gig work on career development and well-being through longitudinal studies is essential. Additionally, empirical studies should investigate the effectiveness of the different regulatory approaches across the various geographic and economic contexts. It is also essential to examine algorithmic management not only as a source of domination but also in contrast to the traditional management practices, exploring its potential to scale operations efficiently, reduce bias, and foster opportunities for skill development and entrepreneurship. By addressing these areas, scholars can develop strategies to enhance both the working conditions and empowerment of gig workers.

Author Contributions: Conceptualization, G.R.P.; methodology, G.R.P., F.L.P. and A.A.M.; software, G.R.P.; validation, G.R.P., F.L.P. and A.A.M.; writing—original draft preparation, G.R.P.; writing—review and editing, G.R.P., F.L.P. and A.A.M.; visualization, G.R.P.; supervision, F.L.P. and A.A.M. All authors have read and agreed to the published version of the manuscript.

Funding: F.L.P. acknowledges the financial support provided by FCT Portugal under the project UIDB/04152/2020—Centro de Investigação em Gestão de Informação (MagIC).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study are available upon request from the corresponding author.

Conflicts of Interest: The authors declare no conflicts of interest.

References

Anwar, Mohammad Amir, and Mark Graham. 2021. Between a Rock and a Hard Place: Freedom, Flexibility, Precarity and Vulnerability in the Gig Economy in Africa. *Competition and Change* 25: 237–58. [CrossRef]

Bascur, Juan Pablo, Suzan Verberne, Nees Jan van Eck, and Ludo Waltman. 2023. Academic Information Retrieval Using Citation Clusters: In-Depth Evaluation Based on Systematic Reviews. *Scientometrics* 128: 2895–921. [CrossRef]

Behl, Abhishek, Nirma Jayawardena, Alessio Ishizaka, Manish Gupta, and Amit Shankar. 2022. Gamification and Gigification: A Multidimensional Theoretical Approach. *Journal of Business Research* 139: 1378–93. [CrossRef]

Bellesia, Francesca, Elisa Mattarelli, and Fabiola Bertolotti. 2023. Algorithms and Their Affordances: How Crowdworkers Manage Algorithmic Scores in Online Labour Markets. *Journal of Management Studies* 60: 1–37. [CrossRef]

Bucher, Eliane Léontine, Peter Kalum Schou, and Matthias Waldkirch. 2021. Pacifying the Algorithm—Anticipatory Compliance in the Face of Algorithmic Management in the Gig Economy. *Organization* 28: 44–67. [CrossRef]

Cameron, Lindsey D., and Hatim Rahman. 2022. Expanding the Locus of Resistance: Understanding the Co-Constitution of Control and Resistance in the Gig Economy. *Organization Science* 33: 38–58. [CrossRef]

Chai, Sunyu, and Maureen A. Scully. 2019. It's About Distributing Rather than Sharing: Using Labor Process Theory to Probe the 'Sharing' Economy. *Journal of Business Ethics* 159: 943–60. [CrossRef]

Cherbakov, L., G. Galambos, R. Harishankar, S. Kalyana, and G. Rackham. 2005. Impact of Service Orientation at the Business Level. *IBM Systems Journal* 44: 653–68. [CrossRef]

Cram, W. Alec, Martin Wiener, Monideepa Tarafdar, and Alexander Benlian. 2022. Examining the Impact of Algorithmic Control on Uber Drivers' Technostress. *Journal of Management Information Systems* 39: 426–53. [CrossRef]

Crayne, Matthew P., and Alice M. Brawley Newlin. 2023. Driven to Succeed, or to Leave? The Variable Impact of Self-Leadership in Rideshare Gig Work. *International Journal of Human Resource Management* 35: 98–120. [CrossRef]

Duggan, James, Ultan Sherman, Ronan Carbery, and Anthony McDonnell. 2020. Algorithmic Management and App-work in the Gig Economy: A Research Agenda for Employment Relations and HRM. *Human Resource Management Journal* 30: 114–32. [CrossRef]

Durach, Christian F., Joakim Kembro, and Andreas Wieland. 2017. A New Paradigm for Systematic Literature Reviews in Supply Chain Management. *Journal of Supply Chain Management* 53: 67–85. [CrossRef]

Elbanna, Amany, and Ayomikun Idowu. 2022. Crowdwork, Digital Liminality and the Enactment of Culturally Recognised Alternatives to Western Precarity: Beyond Epistemological Terra Nullius. *European Journal of Information Systems* 31: 128–44. [CrossRef]

Fayard, Anne Laure. 2021. Notes on the Meaning of Work: Labor, Work, and Action in the 21st Century. *Journal of Management Inquiry* 30: 207–20. [CrossRef]

Fleming, Peter. 2017. The Human Capital Hoax: Work, Debt and Insecurity in the Era of Uberization. *Organization Studies* 38: 691–709. [CrossRef]
Galière, Sophia. 2020. When Food-Delivery Platform Workers Consent to Algorithmic Management: A Foucauldian Perspective. *New Technology, Work and Employment* 35: 357–70. [CrossRef]
Gandini, Alessandro. 2019. Labour Process Theory and the Gig Economy. *Human Relations* 72: 1039–56. [CrossRef]
Gegenhuber, Thomas, Markus Ellmer, and Elke Schüßler. 2021. Microphones, Not Megaphones: Functional Crowdworker Voice Regimes on Digital Work Platforms. *Human Relations* 74: 1473–503. [CrossRef]
Geissinger, Andrea, Christofer Laurell, Christina Öberg, Christian Sandström, and Yuliani Suseno. 2022. The Sharing Economy and the Transformation of Work: Evidence from Foodora. *Personnel Review* 51: 584–602. [CrossRef]
Gleim, Mark R., Catherine M. Johnson, and Stephanie J. Lawson. 2019. Sharers and Sellers: A Multi-Group Examination of Gig Economy Workers' Perceptions. *Journal of Business Research* 98: 142–52. [CrossRef]
Huang, Keman, Jinhui Yao, and Ming Yin. 2019. Understanding the Skill Provision in Gig Economy from a Network Perspective: A Case Study of Fiverr. *Proceedings of the ACM on Human-Computer Interaction* 3: 132. [CrossRef]
Johnston, Hannah, and Chris Land-Kazlauskas. 2018. Organizing On-Demand: Representation, Voice, and Collective Bargaining in the Gig Economy. In *Conditions of Work and Employment Series*. Geneva: ILO. ISSN 2226-8944. [CrossRef]
Kellogg, Katherine C., Melissa A. Valentine, and Angéle Christin. 2020. Algorithms at Work: The New Contested Terrain of Control. *Academy of Management Annals* 14: 366–410. [CrossRef]
McDonnell, Anthony, Ronan Carbery, John Burgess, and Ultan Sherman. 2021. Technologically Mediated Human Resource Management in the Gig Economy. *International Journal of Human Resource Management* 32: 3995–4015. [CrossRef]
Meijerink, Jeroen, and Anne Keegan. 2019. Conceptualizing Human Resource Management in the Gig Economy: Toward a Platform Ecosystem Perspective. *Journal of Managerial Psychology* 34: 214–32. [CrossRef]
Meijerink, Jeroen, and Tanya Bondarouk. 2023. The Duality of Algorithmic Management: Toward a Research Agenda on HRM Algorithms, Autonomy and Value Creation. *Human Resource Management Review* 33: 100876. [CrossRef]
Muldoon, James, and Paul Raekstad. 2023. Algorithmic Domination in the Gig Economy. *European Journal of Political Theory* 22: 587–607. [CrossRef]
Myhill, Katie, James Richards, and Kate Sang. 2021. Job Quality, Fair Work and Gig Work: The Lived Experience of Gig Workers. *International Journal of Human Resource Management* 32: 4110–35. [CrossRef]
Newlands, Gemma. 2021. Algorithmic Surveillance in the Gig Economy: The Organization of Work through Lefebvrian Conceived Space. *Organization Studies* 42: 719–37. [CrossRef]
Norlander, Peter, Nenad Jukic, Arup Varma, and Svetlozar Nestorov. 2021. The Effects of Technological Supervision on Gig Workers: Organizational Control and Motivation of Uber, Taxi, and Limousine Drivers. *International Journal of Human Resource Management* 32: 4053–77. [CrossRef]
Oliva, Fábio Lotti, Andrei Carlos Torresani Paza, Jefferson Luiz Bution, Masaaki Kotabe, Peter Kelle, Eduardo Pinheiro Gondim de Vasconcellos, Celso Claudio de Hildebrand e. Grisi, Martinho Isnard Ribeiro de Almeida, and Adalberto Americo Fischmann. 2022. A Model to Analyze the Knowledge Management Risks in Open Innovation: Proposition and Application with the Case of GOL Airlines. *Journal of Knowledge Management* 26: 681–721. [CrossRef]
Paul, Justin, Weng Marc Lim, Aron O'Cass, Andy Wei Hao, and Stefano Bresciani. 2021. Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR). *International Journal of Consumer Studies* 45: O1–O16. [CrossRef]
Petriglieri, Gianpiero, Susan J. Ashford, and Amy Wrzesniewski. 2019. Agony and Ecstasy in the Gig Economy: Cultivating Holding Environments for Precarious and Personalized Work Identities. *Administrative Science Quarterly* 64: 124–70. [CrossRef]
Pilatti, Gustavo, Cristian Candia, Alessandra Montini, and Flávio L. Pinheiro. 2023. From Co-Location Patterns to an Informal Social Network of Gig Economy Workers. *Applied Network Science* 8: 77. [CrossRef]
Rani, Uma, and Marianne Furrer. 2021. Digital Labour Platforms and New Forms of Flexible Work in Developing Countries: Algorithmic Management of Work and Workers. *Competition and Change* 25: 212–36. [CrossRef]
Ravenelle, Alexandrea J. 2019. 'We're Not Uber:' Control, Autonomy, and Entrepreneurship in the Gig Economy. *Journal of Managerial Psychology* 34: 269–85. [CrossRef]
Rolf, Steven, Jacqueline O'Reilly, and Marc Meryon. 2022. Towards Privatized Social and Employment Protections in the Platform Economy? Evidence from the UK Courier Sector. *Research Policy* 51: 104492. [CrossRef]
Sanasi, Silvia, Antonio Ghezzi, Angelo Cavallo, and Andrea Rangone. 2020. Making Sense of the Sharing Economy: A Business Model Innovation Perspective. *Technology Analysis and Strategic Management* 32: 895–909. [CrossRef]
Scuotto, V., S. Le Loarne Lemaire, D. Magni, and A. Maalaoui. 2022. Extending Knowledge-Based View: Future Trends of Corporate Social Entrepreneurship to Fight the Gig Economy Challenges. *Journal of Business Research* 139: 1111–22. [CrossRef]
Sessions, Hudson, Jennifer D. Nahrgang, Manuel J. Vaulont, Raseana Williams, and Amy L. Bartels. 2021. Do the Hustle! Empowerment from Side-Hustles and Its Effects on Full-Time Work Performance. *Academy of Management Journal* 64: 235–64. [CrossRef]
Shanahan, Genevieve, and Mark Smith. 2021. Fair's Fair: Psychological Contracts and Power in Platform Work. *International Journal of Human Resource Management* 32: 4078–109. [CrossRef]
Tirapani, Alessandro Niccolò, and Hugh Willmott. 2023. Revisiting Conflict: Neoliberalism at Work in the Gig Economy. *Human Relations* 76: 53–86. [CrossRef]

Traag, V. A., L. Waltman, and N. J. van Eck. 2019. From Louvain to Leiden: Guaranteeing Well-Connected Communities. *Scientific Reports* 9: 5233. [CrossRef] [PubMed]

Waldkirch, Matthias, Eliane Bucher, Peter Kalum Schou, and Eduard Grünwald. 2021. Controlled by the Algorithm, Coached by the Crowd–How HRM Activities Take Shape on Digital Work Platforms in the Gig Economy. *International Journal of Human Resource Management* 32: 2643–82. [CrossRef]

Wei, Wei, and Ian Thomas MacDonald. 2022. Modeling the Job Quality of 'Work Relationships' in China's Gig Economy. *Asia Pacific Journal of Human Resources* 60: 855–79. [CrossRef]

Wiener, Martin, W. Alec Cram, and Alexander Benlian. 2023. Algorithmic Control and Gig Workers: A Legitimacy Perspective of Uber Drivers. *European Journal of Information Systems* 32: 485–507. [CrossRef]

Wilkinson, Adrian, Michael Knoll, Paula K. Mowbray, and Tony Dundon. 2021. New Trajectories in Worker Voice: Integrating and Applying Contemporary Challenges in the Organization of Work. *British Journal of Management* 32: 693–707. [CrossRef]

Wood, Alex J., Nicholas Martindale, and Vili Lehdonvirta. 2023. Dynamics of Contention in the Gig Economy: Rage against the Platform, Customer or State? *New Technology, Work and Employment* 38: 330–50. [CrossRef]

Wood, Alex J., Vili Lehdonvirta, and Mark Graham. 2018. Workers of the Internet Unite? Online Freelancer Organisation among Remote Gig Economy Workers in Six Asian and African Countries. *New Technology, Work and Employment* 33: 95–112. [CrossRef]

Yao, Qiongrui (Missy), La Kami T. Baker, and Franz T. Lohrke. 2022. Building and Sustaining Trust in Remote Work by Platform-Dependent Entrepreneurs on Digital Labor Platforms: Toward an Integrative Framework. *Journal of Business Research* 149: 327–39. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.