

# **POLICY, LEGAL AND REGULATION RESEARCH IN THE SHARING ECONOMY: A BIBLIOMETRIC ANALYSIS AND SYSTEMATIC LITERATURE REVIEW\***

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## **ABSTRACT**

The sharing economy has changed the way we think about services, assets, and ownership. This phenomenon has shaped a new economic model which emphasises sharing over property ownership. Shared platforms such as Airbnb, Grab, and Uber are increasing in size and popularity exponentially, causing certain political and legal issues associated with such growth. In this regard, this paper aims to investigate the evolution of policy, legal and regulatory research in the sharing economy from the year 1995 to the year 2020 and focuses on new research topics in this field. To achieve this goal, the study utilised extensive bibliometric analysis to identify and analyse 343 articles published in SCOPUS indexed journals from 2004 to 2020. The result shows that research on the sharing economy has increased since 2000. However, the total number of publications in SCOPUS journal relating to policies and regulations still lags behind as compared to the publications in other disciplines. Most of the published research is in the form of concept papers and empirical research. Nevertheless, it is

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still inadequate. This study summarises the evolution of publications over time and outlines the interests of current research and the potential directions for future research, including addressing policy and organisational research issues in the sharing economy.

**Keywords:** Sharing economy, legal, policy, regulation, platform economy.

## **KAJIAN DASAR, UNDANG-UNDANG DAN PERATURAN DALAM PERKONGSIAN EKONOMI: SUATU ANALISIS BIBLIOMETRIK DAN TINJAUAN LITERATUR SISTEMATIK**

### **ABSTRAK**

Perkongsian ekonomi telah mengubah cara kita memahami perkhidmatan, harta benda dan pemilikan. Fenomena ini telah menghasilkan satu model ekonomi baharu yang lebih menekankan kepada perkongsian ke atas pemilikan harta benda. Platform perkongsian ekonomi seperti Airbnb, Grab, dan Uber yang telah berkembang secara pesat dari segi saiz dan populariti telah menimbulkan beberapa kebimbangan dari segi dasar dan undang-undang. Dalam konteks ini, tujuan makalah ini adalah untuk mengkaji evolusi kajian berkaitan dengan dasar, undang-undang dan peraturan di dalam perkongsian ekonomi di antara tahun 1995 sehingga tahun 2020 dan memfokuskan kepada perkembangan kajian terbaharu dalam bidang ini. Untuk memenuhi tujuan makalah ini, kajian ini telah menggunakan analisis bibliometrik secara menyeluruh untuk mengenalpasti dan menganalisa 343 artikel yang diterbitkan dalam jurnal berindeks SCOPUS dari tahun 2004 hingga tahun 2020. Tinjauan ini menunjukkan bahawa kajian mengenai tema perkongsian ekonomi telah meningkat sejak tahun 2000. Namun, jumlah artikel yang diterbitkan berkaitan dasar, undang-undang dan peraturan di dalam jurnal SCOPUS masih jauh ketinggalan berbanding disiplin lain. Sebilangan besar kajian yang diterbitkan adalah kertas konsep dan kajian berbentuk empirikal. Akan tetapi ianya masih tidak mencukupi. Kajian ini juga meringkaskan evolusi penerbitan dari masa ke semasa. Makalah ini menggariskan kepentingan penyelidikan semasa dan hala tuju yang berpotensi untuk dijadikan penyelidikan masa hadapan, termasuk menangani isu penyelidikan dasar dan organisasi dalam perkongsian ekonomi.

**Kata kunci:** Perkongsian ekonomi, perundangan, dasar, peraturan, platform ekonomi.

## INTRODUCTION

Technological advancement has now allowed the 'sharing economy' to grow exponentially. According to Agarwal and Steinmetz, from a theoretical point of view, the term is often referred to as an umbrella term for various forms of consumption not related to property, such as "collaborative consumption" and "access-based consumption".<sup>1</sup> However, the concept generally refers to "an economic system based on the fact that people share property and services, free of charge or for a fee, usually using the Internet to organise this". Websites and mobile applications on the Internet, called "platforms", are becoming a catalyst for the creation of new and growing businesses offering "shared consumption" or "access-based consumption", which usually focus on the rental of goods and the provision of services.

Historically, the sharing economy concept can be traced back to eBay's pioneering days as an online auction site in the 1990s. These platforms include Airbnb for short stays and Grab for short car lifts or recent trips on demand. These platforms, among other things, provide users with a communication channel, contractual clauses, and a secure payment method. Admittedly, the sharing economy, with its underlying technologies and benefits, has impacted our lives and livelihoods.

Nonetheless, the popularity of these platforms has triggered ongoing policy and legal uproar, raising concerns about whether and to what extent the sharing economy should be regulated.<sup>2</sup> Politicians

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<sup>1</sup> Agarwal Nivedita, and Steinmetz Robert, "Sharing Economy: A Systematic Literature Review," *International Journal of Innovation and Technology Management* 16, no. 6 (2019): 1-17.

<sup>2</sup> Erickson Kristofer, and Inge Sørensen, "Regulating the Sharing Economy," *Internet Policy Review* 5, no. 2 (2016): 1-13. <http://dx.doi.org/10.14763/2016.2.414>; Stemler Abbey, "The Myth of the Sharing Economy and Its Implications for Regulating Innovation," *Emory Law Journal* 67, no. 2 (2017): 197-241. <https://scholarlycommons.law.emory.edu/elj/vol67/iss2/1>; TremblayHuet, Sabrina. *Law and the "Sharing Economy": Regulating Online Market Platforms*. Edited by Derek McKee, Makela Finn, and Scassa Teresa.

and legislators still find it difficult to clearly define the concept of legal liability in the sharing economy and decide whether the existing laws and regulations should be applied to these platforms or whether new policies and regulations need to be formulated. The purpose of this analysis is to explore these questions and their possible answers.

This study is an overview of research findings related to policy, legal, and regulation of the sharing economy. It assesses how academic research affects collaborative economics policy and regulatory debate. Thus, this article seeks to contribute to the literature on two levels. First, it addresses this wide range of issues through a bibliometric analysis of academic research literature on policies, regulations, and laws in sharing economics published in SCOPUS Indexed. Second, it determines the trend of research on policies and regulations of the sharing economy and it summarises the current research interest areas and potential directions for future research.

The term “bibliometrics” was invented by Alan Pritchard in 1969,<sup>3</sup> while bibliometric analysis is the quantitative and qualitative analysis of literature on a certain topic using statistical and mathematical methodologies.<sup>4</sup> Bibliometrics differs from a systematic review<sup>5</sup> in that systematic review strives to answer a specific research issue using a small number of publications. In contrast, a bibliometric analysis uses a large number of publications to address a specific research question. On the other hand, scoping reviews are used to determine the type and scope of research evidence. The bibliometric

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University of Ottawa Press, 2018. Accessed June 7, 2021. doi: 10.2307/j.ctv5vdczv.; Adam Pawlicz, “Pros and Cons of Sharing Economy Regulation. Implications for Sustainable City Logistics,” *Transportation Research Procedia* 39 (2019): 398-404. <https://doi.org/10.1016/j.trpro.2019.06.042>.

<sup>3</sup> Ahmad Paras, et al., “A bibliometric analysis of Periodontology 2000,” *Periodontology* 2000 82, no. 1 (2020): 286–297, <https://doi.org/10.1111/prd.12328>.

<sup>4</sup> Thompson Dennis F., and Walker Cheri K., “A descriptive and historical review of bibliometrics with applications to medical science,” *Pharmacotherapy* 35, no. 6 (2015): 551–559.

<sup>5</sup> Sweileh Waleed M., et al., “Bibliometric analysis of global migration health research in peer-reviewed literature (2000-2016),” *BMC Public Health* 18, no. 777 (2018): 1–18.

study, despite its flaws, offers a valuable view into a field's national and worldwide contributions to literature. It also gives baseline data, which aids in the identification of research gaps that could be addressed in future studies.

Bibliometric analysis shows that, while political and regulatory issues are often the focus of the media, they are one of the least explored topics in SCOPUS indexed journals. In addition, the overview also shows that empirically sound research on the policy, legal and regulation discussion is rare. The main research's focal point concentrates on issues related to the proposal of models of regulatory change. However, the in-depth empirical research to support just and relevant regulation has been inadequate.

Despite the growing interest in social research, there have been few attempts to report on the literature trend, particularly those that use a bibliometric method. For instance, a study by Mody et al.<sup>6</sup> used a tri-method approach which included bibliometric (co-citation) analysis, thematic content analysis, and a quantitative systematic literature review on sharing economy research in hospitality and tourist publications published up to and containing contents till May 2020. Similarly, Pu et al.<sup>7</sup> used a bibliometric method using VOSviewer and COOC analysis to examine the sharing economy as a potential approach to promote sustainable development. Furthermore, based on a bibliometric data set relevant to sharing economy articles, Kraus et al.<sup>8</sup> did (co-)citation analysis for author, (co-)citation analysis for cooperation analysis, and journal institution citation. In addition, document (co-)citation analysis, keyword co-occurrence

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<sup>6</sup> Mody Makarand A., Hanks Lydia, and Cheng Mingming, "Sharing economy research in hospitality and tourism: a critical review using bibliometric analysis, content analysis and a quantitative systematic literature review," *International Journal of Contemporary Hospitality Management* 33, no. 5 (2021): 1711-1745, <https://doi.org/10.1108/IJCHM-12-2020-1457>.

<sup>7</sup> Pu Ruihui, Li Xiang and Chen Pujiayi, "Sustainable development and sharing economy: A bibliometric analysis," *Problems and Perspectives in Management* 19, no. 04 (2021): 1-19.

<sup>8</sup> Kraus Sascha G., et al., "The sharing economy: a bibliometric analysis of the state-of-the-art," *International Journal of Entrepreneurial Behavior and Research* 26, no. 8 (2020): 1769-1786, <https://doi.org/10.1108/IJEBr-06-2020-0438>.

analysis, and burst detection analysis were also being analysed. Meanwhile, Filser et al.<sup>9</sup> employed bibliometric analysis to establish three theme clusters based on the top 20 most cited publications, conduct a citation analysis to illustrate interdependencies among all authors, and identify research methodologies used in sharing economy papers.

Therefore, it is necessary to explore and advance the role of law and regulation in the sharing economy, especially given the importance of policies and legal obligations in protecting consumers or users in the sharing economy. This paper provides an overview of relevant research contributions in SCOPUS, identifies several research gaps, and makes recommendations for further research.

The paper's structure is aligned based on the following discussion. First, a bibliometric analysis of research contributions published in SCOPUS based journals is undertaken. Second, the analysis results are used as a framework for the subsequent systematic literature search. Finally, the paper concludes the discussion by highlighting the need for further research, particularly with regard to promoting the role of literature and empirical data in policymaking and regulation needs in sharing economy research.

## METHODS

This article's review is based on a combination of bibliometric analysis and document content analysis. Although the bibliometric analytical method has been commonly employed to provide a comprehensive overview of the vast amount of literature in a particular field, the authors were of the view that in order to depict a more accurate representation of the literature in an emerging field of research, both bibliometric analysis and systematic literature review need to be used. Thus, a bibliometric analysis was conducted first, followed by a systematic literature review of the bibliometric results.

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<sup>9</sup> Filser Matthias, et al., "Sharing economy: A bibliometric analysis of the state of research," *International Journal of Entrepreneurial Venturing* 12, no. 06 (2020): 665-687.

Zyoud et al.<sup>10</sup> describe bibliometric analysis as one of the most widely recognised tools for measuring or evaluating research in various fields of research. Bibliometric analysis can provide comprehensive information about the collection of publications from any specific databases, such as document types and sources, publication timeframes, publication categorisation, publication location, authors, text analysis, keyword frequency, and citations.<sup>11</sup> In particular, the bibliometric analysis examines bibliographic metadata in order to display trends in the production of knowledge associated with a particular body of documents.

The use of bibliographic data to identify the main themes and themes of networks and their interrelationships is consistent with the purpose of this study, which is to provide an overview of research findings on policy, legal, and regulation in the sharing economy. To achieve this, the Harzing Publish or Perish software was used to retrieve and analyse academic citations for more accurate bibliometric analysis. Second, the VOSviewer software has also been used to network visualise key topics and their interrelationships. This method is used in the VOSviewer software,<sup>12</sup> which extracts datasets and selects keywords that collectively describe a group of papers that meet a certain criterion. The software needs a threshold that represents the minimum number of keywords that must appear in a document together.

The VOSviewer software analyses the significant contributions published in SCOPUS indexed publications over the past 40 years from 1990 to 2020. Indexed publications from SCOPUS were used to develop this bibliometric analysis and establish its high position in

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<sup>10</sup> Zyoud Shaher, et al., "A Bibliometric-Based Evaluation on Environmental Research in the Arab World," *International Journal of Environmental Science and Technology* 14, no. 4 (2016): 689–706. <https://doi.org/10.1007/s13762-016-1180-3>.

<sup>11</sup> Ahmi Aidi, and Mohd Nasir Mohd Herry, "Review of Examining the Trend of the Research on Extensible Business Reporting Language (XBRL): A Bibliometric Review," *International Journal of Innovation, Creativity and Change* 5, no. 2 (2019): 1145–67. [www.ijicc.net](http://www.ijicc.net).

<sup>12</sup> van Eck Nees Jan and Waltman Ludo, "VOSviewer: A Computer Program for Bibliometric Mapping," *Scientometrics* 84, (2010): 523–538.

major bibliometric databases.<sup>13</sup> This paper uses network visualisations and bibliometric indicators to present the results.

### **Bibliometric Analysis**

The bibliometric analysis relies on the SCOPUS database as the main source of documents on policy, legal and regulation research in the sharing economy. SCOPUS uses consistent document inclusion standards in its database and provides the ability to export bibliographic metadata for use in bibliographic statistical software packages. In addition, as compared to Web of Science, Medline, and Google Scholar, SCOPUS, an Elsevier service, provides a more comprehensive range of relevant education and social science journals.<sup>14</sup> SCOPUS also indexes a far larger number of journals than any other database for scientific study.<sup>15</sup> For these reasons, it became the preferred database for this study.

The use of bibliographic data to identify the main themes and themes of networks and their interrelationships is in line with the aim of this study which is to provide an overview of research results on politics and regulation in the sharing economy. However, although bibliometric analysis can be useful for identifying significant subjects and publications within a field, it is prone to various biases. For

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<sup>13</sup> Jacsó, Péter, "Google Scholar: The Pros and the Cons," *Online Information Review* 29, no. 2 (2005): 208–14. <https://doi.org/10.1108/14684520510598066>.

<sup>14</sup> De Groote Sandra L., and Raszewski Rebecca, "Coverage of Google Scholar, SCOPUS, and Web of Science: A Case Study of the H-Index in Nursing," *Nursing Outlook* 60, no. 6 (2012): 391–400. <https://doi.org/10.1016/j.outlook.2012.04.007>; Hallinger Philip, and Kovačević Jasna, "A Bibliometric Review of Research on Educational Administration: Science Mapping the Literature, 1960 to 2018," *Review of Educational Research* 89, no. 3 (2019): 335–69; Philippe Mongeon, and Adèle Paul-Hus, "The journal coverage of Web of Science and SCOPUS: a comparative analysis," *Scientometrics* 106, no. 1 (2016): 213–228.

<sup>15</sup> Kulkarni Abhaya V., et al., "Comparisons of citations in Web of Science, SCOPUS, and Google Scholar for articles published in general medical journals," *JAMA* 302, no. 10 (2009): 1092–1096. doi:10.1001/jama.2009.130.

example, manuscripts may be cited several times due to professional bias, self-citation, institutional, and language biases.<sup>16</sup>

Therefore, the Harzing Publish or Perish software is used to retrieve and analyse academic citations for a more accurate bibliometric analysis. On the other hand, the VOSviewer software was also used for the networked visualisation of key topics and their interrelationships.

The scope of topics for this review was delimited to policy, legal, and regulation in the sharing economy. In the aspect of operational terms, the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines for the document search were followed.<sup>17</sup> Accordingly, a series of searches were conducted that used different combinations of the following keyword string: ('Law' OR 'Legal' AND 'Sharing Economy' OR 'Platform Economy' AND 'Policy') from 2004 until 2020. All other years were omitted from the study, ranging from 1995 to 2003. This is due to the fact that the documents within these years (1995-2003) do not meet the notion of legal, sharing economy, and policy publication. Nevertheless, there was no language restriction in conducting the bibliometric analysis.

In the initial search of research contributions published in SCOPUS indexed journals between 2004 and 2020, a total of 343 research publications were generated. These papers were then extracted in the form of bibliometric data and were later exported into an Excel file and processed for subsequent analysis. Relevant bibliographic meta-data processed include the author's name(s), document title, year of publication, source document (e.g., journal, book, or conference name), citation information, and author affiliations.

The indexed publication SCOPUS was used to develop this bibliometric analysis and establish its high position in the category of

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<sup>16</sup> A. Mainwaring, et al., "The top 100 most cited manuscripts in bladder cancer: A bibliometric analysis and review article," *International Journal of Surgery*, 75 (2020): 130–138.

<sup>17</sup> Moher David, et al., "Preferred reporting items for systematic review And meta-analysis protocols (PRISMA-P) 2015 statement," *Systematic reviews* 4, no. 1 (2015): 1-9.

major bibliometric databases. This article uses network visualisations and bibliometric indicators to present the results. These documents were then filtered to exclude duplicate articles and irrelevant publications unrelated to the review's core topical scope. Hence, this article is only restricted to publications in the English language, which yielded 172 publications. Thus, the final database left for review consists of 165 SCOPUS indexed documents at the end of these filtering and screening processes.

This article uses the VOSviewer software programme to perform a "temporal keyword co-occurrence analysis" of local lesions.<sup>18</sup> 165 SCOPUS indexed documents have been uploaded to VOSviewer for the next step in the analysis. In this analysis, the software first scans the document titles, keywords, and summaries in the review database to determine the frequency of co-occurrence keywords. The software then links the occurrence of the keyword with the year of publication of the relevant document. Finally, it creates a date distribution for each keyword. It also identifies how long a particular keyword (that is, topic) was most prominently featured in the literature.<sup>19</sup>

## DATA ANALYSIS

The data was tabulated and transferred from SCOPUS to Excel for analysis. The data of policy, legal and regulation research in the sharing economy that was exported included:

1. The number of source types - Referring to what type of publications most scholars produced.

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<sup>18</sup> van Eck Nees Jan, and Waltman Ludo, "Visualizing bibliometric networks." In *measuring scholarly impact*, pp. 285-320. Springer, Cham, 2014.

<sup>19</sup> Van Eck Nees Jan, et al., "A Comparison of Two Techniques for Bibliometric Mapping: Multidimensional Scaling and VOS," *Journal of the American Society for Information Science and Technology* 61 (2010): 2405-16; van Eck Nees Jan, and Waltman Judo, "Visualizing Bibliometric Networks", 285-320; Ivan Zupic, and Čater Tomaž., "Bibliometric Methods in Management and Organization," *Organizational Research Methods* 18, no. 3 (2015): 429-472.

- 2.The number of publications – This indicates the yearly publications from 2004 until 2020.
- 3.The number of the subject area – This identifies the most prevalent areas of study among academics.
- 4.Number of keyword analysis by focusing on the top keywords.
- 5.Number of top countries contributed to the publications.
- 6.Names of text analysis - All collection headers and abstracts in the document were examined.
- 7.Citation analysis with the citation indicators of the documents retrieved.

## RESULTS

The following characteristics were used to analyse the academic material that was extracted throughout the search procedure: research productivity, source type, and year of publications, subject area, keywords, distribution of publication by countries, most productive authors, title, abstract analysis, and citation analysis. In addition, annual growth data, including their frequency and percentage until 2020, were also presented in the findings.

### Source Types

More research was done to evaluate the types of documents and research sources utilised in publications related to law, legal, sharing economy, platform economy, and policy. The results show that these documents are categorised into two types of sources (refer to Table 1): journal (162 papers), representing 98.1% of the documents, followed by book series 81.81%.

**Table 1: Source Type**

Source Type	Total Publications (TP)	Percentage (%)
Journal	162	98.1
Book Series	3	1.81
	<b>165</b>	<b>100.00</b>

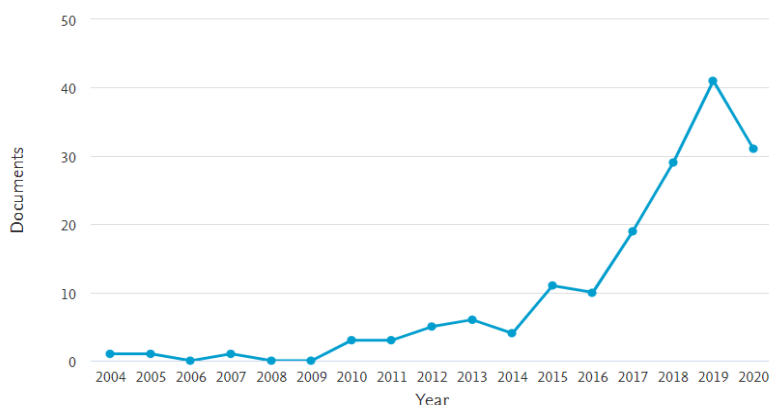
**Year of Publications - Evolution of Published Studies**

As indicated in Table 2, there was only one publication on the topic relating to the subject area from 2004 until 2007 followed by three publications in 2010 and 2011. However, from 2012 to 2018, a dramatic increase can be seen in the number of relevant publications in SCOPUS. In contrast, no studies were published in 2006, 2008, or 2009. The year 2019 showed the highest number of publications. 24.8% of the total publications are then included in the review database. By 2020, the number of publications dropped to 18.7%. Figure 1 below depicts the increase in publishing activity in this subject area from 2004 to 2020.

**Table 2: Year of Publications**

<b>Year</b>	<b>TP</b>	<b>Percentage (%)</b>
2020	31	18.7
2019	41	24.8
2018	29	17.6
2017	19	11.5
2016	10	6.06
2015	11	6.67
2014	4	2.42
2013	6	3.64
2012	5	3.03
2011	3	1.82
2010	3	1.82
2007	1	0.61
2005	1	0.61
2004	1	0.61
<b>Total</b>	<b>165</b>	<b>100</b>

Notes: TP=total number of publications



**Fig. 1:** Document by Year

### Subject Area

Table 3 below summarises the publications by subject area. It shows that with a total of 123 (74.5%) publications, the largest number of publications were assigned to the area of "social sciences". The next subject area is followed by "business, management and accounting" (2.18%), "computer science" (15.1%), "economics, econometrics and finance" (14.5%) and "environmental science" (8.48%). Finally, the lowest publication was from "mathematics" and "multidisciplinary", with a total of 1 (0.61%).

**Table 3:** Subject Area

Subject Area	Total Publications (TP)	Percentage (%)
Agricultural and Biological Sciences	5	3.03
Arts and Humanities	4	2.42
Biochemistry, Genetics and Molecular Biology	3	1.82
Business, Management and Accounting	36	2.18
Computer Science	25	15.1
Decision Sciences	8	4.85

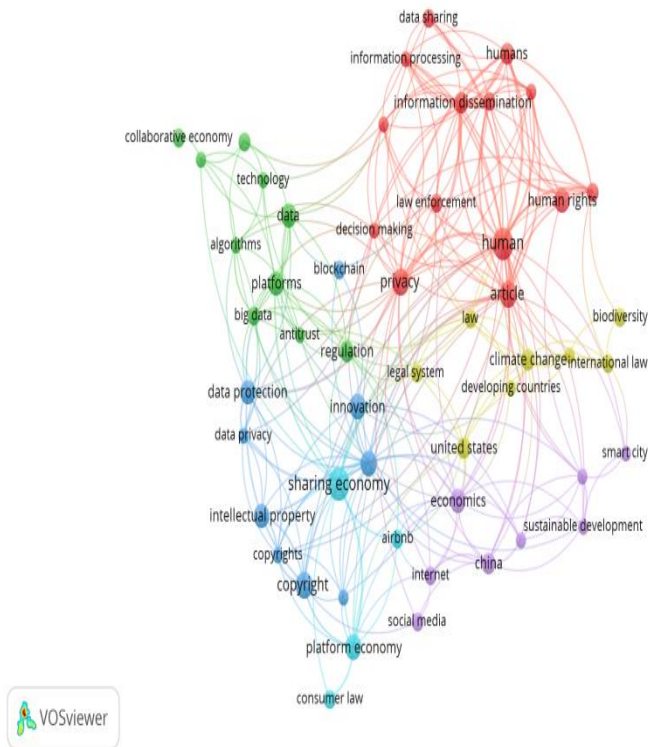
Earth and Planetary Sciences	4	2.42
Economics, Econometrics and Finance	24	14.5
Energy	4	2.42
Engineering	4	2.42
Environmental Science	14	8.48
Mathematics	1	0.61
Medicine	9	5.45
Multidisciplinary	1	0.61
Nursing	3	1.82
Social Sciences	123	74.5

### Keywords Analysis

All keyword analysis was performed using VOS viewer. The network visualisation of all keywords is shown in Figure 2. Font colour, node, connection line size, and weight are used to indicate their relationship to other keywords. The analysis shows that law, legal, participatory economics, platform economics, and policy research have six main groups based on all keywords.<sup>20</sup>

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<sup>20</sup> see Table 4



**Fig. 2:** Network visualisation map: all keywords (Full Counting)

Table 4 reveals the top keywords established from the bibliometric search. Predominant keywords that transpired include the sharing economy, human, copyright, privacy, innovation and laws, and legislation.

**Table 4: Top Keywords**

<b>All Keywords</b>	<b>Total Publications (TP)</b>	<b>Percentage (%)</b>
Sharing Economy	12	7.27
Human	11	6.67
Copyright	8	4.85
Privacy	8	4.85
Innovation	7	4.24
Laws and Legislation	7	4.24
Platform Economy	7	4.24
Data	6	3.64
Data Protection	6	3.64
Economics	6	3.64
Human Rights	6	3.64
Intellectual Property	6	3.64
Platforms	6	3.64
China	5	3.03
Climate Change	5	3.03
Humans	5	3.03
Information Dissemination	5	3.03
Regulation	5	3.03
United States	5	3.03
Airbnb	4	2.42

### **Geographical Distribution of Publications**

This paper also identifies a number of countries that have published documents on the sharing economy, legislation, policy, and law. Table 5 demonstrates that the top 5 countries that contribute to the publications were the United States of America (USA), the United Kingdom (U.K.), Australia, the Netherlands, and Germany.

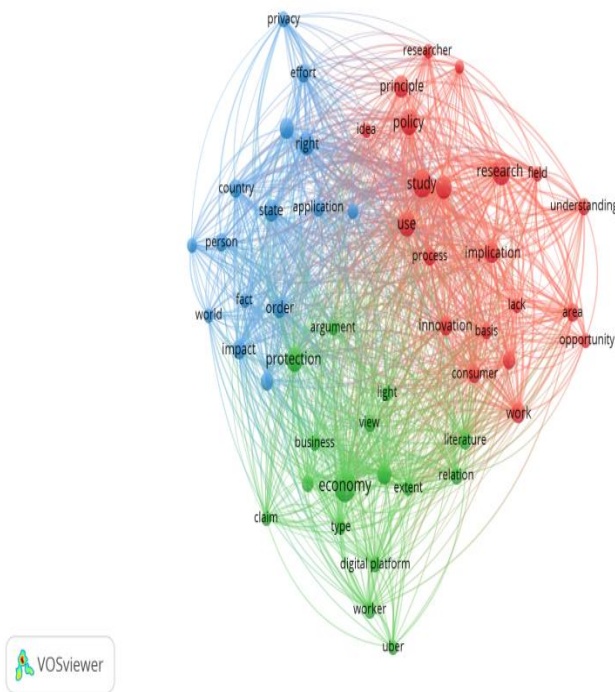
**Table 5:** Top Countries contributed to the publications

<b>Country</b>	<b>TP</b>	<b>Percentage (%)</b>
United States	53	32.1
United Kingdom	26	15.8
Australia	16	9.7
Netherlands	14	8.48
Germany	12	7.27
Italy	12	7.27
Belgium	8	4.85
Switzerland	7	4.24
Canada	6	3.64
China	6	3.64
Spain	6	3.64
Sweden	6	3.64
France	5	3.03
Hong Kong	5	3.03
Israel	4	2.42
Norway	4	2.42
Greece	3	1.82
Austria	2	1.21
Brazil	2	1.21
Indonesia	2	1.21

Note: TP=total number of publications

## Text Analysis

Using the full count method of VOSviewer, all collection headings and abstracts in the document were analysed. A representation of the occurrence of names based on the title and abstract is provided in Figure 3. The size of the nodes represents the strength of the occurrence, while the thickness of the lines between the nodes represents the strength of the link. The terms that are related are grouped together to demonstrate the connections between them. The results of the analysis show that innovation, policies, consumers and processes are closely linked. The terms protection, digital platform, economy, business and Uber are also interrelated. The three life groups represented in the analysis are displayed in three different colours in the analysis.



**Fig. 4:** VOSviewer visualisation of a term co-occurrence network based on title and abstract fields (Binary Counting)

## Citation Analysis

Table 6 shows the citation indicators of the documents retrieved as of November 14, 2020. Harzing's Publish or Perish software is used to find the citation index of the data retrieved from the SCOPUS database. The abstract shows the total number of citations received each year, as well as the number of citations received by each work and author. A total of 165 papers have been published in law, legal, sharing economy, platform economy, and policy journals, which have been cited 1374 times, with an average annual citation of 85.88 times. Furthermore, each work was cited 8.33 times, with a total h-index and g-index of 21 and 30, respectively, for all publications.

**Table 6:** Citations Metrics

Metrics	Data
Publication years	2004-2020
Citation years	16
Papers	165
Citations	1374
Citations/year	85.88
Citations/paper	8.33
Papers/author	1.92
h-index	21
g-index	30

## DISCUSSION

Using the method introduced by Tranfield, Denyer, and Smart,<sup>21</sup> a systematic review of the literature is conducted from the results of the bibliometric analysis to synthesise research contributions. A

<sup>21</sup> Tranfield David, Denyer David, and Smart Palminder, "Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review," *British Journal of Management* 14, no. 3 (2003): 207-222,

systematic literature review offers an inclusive overview of the literature found from the bibliometric analysis. According to Tranfield, Denyer, and Smart,<sup>22</sup> a systematic literature review consists of three consecutive stages. These stages are (1) planning and review, (2) conducting a review, and (3) reporting and dissemination. In the planning and review stages, a review agreement is established. Then, consistent with Tranfield, Denyer, and Smart<sup>23</sup> and based on the results of bibliometric analysis, a review of the academic publications was done to identify research gaps and propose new research approaches. The focus of the review is on the research contributions on the "sharing economy" and "policy, legal and regulation" issues. With the restrictions assigned, the final database (hereinafter referred to as the database) consisting of the 165 SCOPUS indexed documents were searched, and relevant publications were identified using several inclusion and exclusion criteria. Finally, 37 publications related to 'policy, regulation and/or law' were retained and included in this systematic review. These publications include conceptual, empirical qualitative, and quantitative research papers. They were all academic publications in the form of journal articles. An overview of the reviewed articles based on the review as mentioned earlier is provided in Table 7.

**Table 7: Reviewed Articles**

No.	Authors	Title	Year
1	Morgan Bronwen and Declan Kuch	Radical Transactionalism: Legal Consciousness, Diverse Economies, and the Sharing Economy	2015
2	Stefan Nerinckx	The 'Uberization' of the Labour Market: Some Thoughts from an Employment Law Perspective on the Collaborative Economy	2016
3	Calo Ryan, and Alex Rosenblat	The Taking Economy: Uber, Information, and Power	2017

<sup>22</sup> Tranfield David, David Denyer, and Palminder Smart, "Towards a Methodology", 207-222.

<sup>23</sup> Tranfield David, David Denyer, and Palminder Smart, "Towards a Methodology", 207-222.

4	Annamaria Donini, Michele Forlivesi, Anna Rota, and Patrizia Tullini	Towards Collective Protections for Crowdworkers: Italy, Spain, and France in the E.U. Context	2017
5	Vassilis Hatzopoulos and Sofia Roma	Caring for Sharing? The Collaborative Economy Under E.U. Law	2017
6	Derek McKee	Neoliberalism and the Legality of Peer Platform Markets.	2017
7	Alex Rosenblat, Karen E.C. Levy, Solon Barocas, and Tim Hwang	Discriminating Tastes: Uber's Customer Ratings as Vehicles for Workplace Discrimination	2017
8	Todolí-Signes Adrián	The End of the Subordinate Worker? The On-Demand Economy, the Gig Economy, and the Need for Protection for Crowdworkers	2017
9	Helmut Werner	Sharing Economy: Opportunities and Threats	2017
10	Mimi Zou	The Regulatory Challenges of 'Uberization' in China: Classifying Ride-Hailing Drivers	2017
11	Adams Abi, Judith Freedman, and Jeremias Prassl	Rethinking Legal Taxonomies for the Gig Economy	2018
12	Cannas Francesco, Calogero Vecchio, and Davide Pellegrini	A New Legal Framework Towards a Definitive EU VAT System: Online Hosting Platforms and E-Books Reveal Unsolved Problems on the Horizon	2018
13	Irina Domurath	Platforms as Contract Partners: Uber and Beyond	2018
14	Michèle Finck	Digital Co-Regulation: Designing a Supranational Legal Framework for the Platform Economy	2018
15	Hawley Adrian John	Regulating Labour Platforms, the Data Deficit	2018

16	Christina Hiessl	Labour Law for TOS and Hits? Reflections on the Potential for Applying 'Labour Law Analogies' to Crowdworkers, Focusing on Employee Representation	2018
17	Kullmann	Platform Work, Algorithmic Decision-Making, and E.U. Gender Equality Law	2018
18	Leshinsky Rebecca, and Laura Schatz	"I Don't Think My Landlord Will Find Out:" Airbnb and the Challenges of Enforcement.	2018
19	Lei Ma, Tao Li, Jinxi Wu, and Dandan Yan	The Impact of E-Hailing Competition on the Urban Taxi Ecosystem and Governance Strategy from a Rent-Seeking Perspective: The China E-Hailing Platform	2018
20	Julian Nowag	When Sharing Platforms Fix Sellers' Prices	2018
21	Alessandro Turina	Which 'Source Taxation' for the Digital Economy?	2018
22	Fabrellas Anna Ginès	The Zero-Hour Contract in Platform Work Should We Ban it or Embrace it?	2019
23	Flanagan Frances	Theorising the Gig Economy and Home-Based Service Work	2019
24	Jim Hawkins	Protecting Consumers as Sellers.	2019
25	Christian Iaione, Elena De Nictolis, and Anna Berti Suman	The Internet of Humans (IOH): Human Rights and Co-Governance to Achieve Tech Justice in the City	2019
26	Renan Barzilay Arianne	The Technologies of Discrimination: How Platforms Cultivate Gender Inequality	2019
27	Teresa Scassa	Ownership and Control Over Publicly Accessible Platform Data	2019
28	Bilgehan Uzunca and Andrea	Regulation Strictness and Supply in the Platform Economy: The Case of	2019

	Borlenghi	Airbnb and Couchsurfing	
29	Wahyuningtyas and Sih Yuliana	Self-Regulation of Online Platform and Competition Policy Challenges: A Case Study on Go-Jek	2019
30	Ahsan Mujtaba	Entrepreneurship and Ethics in the Sharing Economy: A Critical Perspective	2020
31	Amanda Belarmino and Yoon Koh	A Critical Review of Research Regarding Peer-to-Peer Accommodations	2020
32	Patrick Dieuaide, and Christian Azaïs	Platforms of Work, Labour, and Employment Relationship: The Grey Zones of a Digital Governance	2020
33	Elena Gramano	Digitalisation and Work: Challenges from the Platform-Economy	2020
34	Geraint Howells	Protecting Consumer Protection Values in the Fourth Industrial Revolution	2020
35	Hur Nany, and Jeongjoon Park	Online Platform Providers in the Sharing Economy: Emergence of New Service Suppliers?	2020
36	Nadine Schawe	It's All about Data: Time for a Data Access Regime for the Sharing Economy?	2020
37	Alessandra Quarta	Narratives of the Digital Economy: How Platforms are Challenging Consumer Law and Hierarchical Organisation	2020

It is noticed from the database that the research papers covering issues of policy, legal and regulation, and the sharing economy have only started gaining momentum in recent years from 2017 to 2020.<sup>24</sup> Geographically, a considerable number of the published papers in the database cover issues in Europe, the USA, Australia, and even Asia,

<sup>24</sup> See Table 7.

with a recent one being from Indonesia.<sup>25</sup> A bias towards the North American region is evident in the number of reported publications in the database. Most of the research focuses on case studies in the USA. The U.S.-based technology company UBER, for example, is the centre stage of several studies involving the sharing economy, including in policy, legal and regulation discussion.<sup>26</sup> Notably, however, a majority of the research papers included in this review are Europe-based, with the U.K. leading in the number of research publications focusing on policy and regulatory concerns.

When it comes to the terms used to refer to the sharing economy concept in the publications reviewed, researchers in these publications have used a variety of terms, including the platform economy (or market or work), collaborative economy,<sup>27</sup> gig economy,<sup>28</sup> and digital economy.<sup>29</sup> However, despite the variation, all

<sup>25</sup> Wahyuningtyas, and Sih Yuliana, “Self-Regulation of Online Platform and Competition Policy Challenges: A Case Study on Go-Jek,” *Competition and Regulation in Network Industries* 20, no. 1 (2019): 33–53.

<sup>26</sup> See Table 7; Calo Ryan, and Alex Rosenblat, “The Taking Economy: Uber, Information, and Power.” *SSRN Electronic Journal*, (2017). Alex Rosenblat, Karen E.C. Levy, Solon Barocas, and Tim Hwang, “Discriminating Tastes: Uber’s Customer Ratings as Vehicles for Workplace Discrimination,” *Policy & Internet* 9, no. 3 (2017): 256–79. <https://doi.org/10.1002/poi3.153>; Mimi Zou, “The Regulatory Challenges of Uberization in China: Classifying Ride-Hailing Drivers,” *SSRN Electronic Journal*, (2017) <https://doi.org/10.2139/ssrn.2866874>; Irina Domurath, “Platforms as Contract Partners: Uber and Beyond,” *Maastricht Journal of European and Comparative Law* 25, no. 5 (2018): 565–81. <https://doi.org/10.1177/1023263x18806485>.

<sup>27</sup> See Table 7; Nerinckx Stefan, “The ‘Uberization’ of the Labour Market: Some Thoughts from an Employment Law Perspective on the Collaborative Economy,” *ERA Forum* 17, no. 2 (2016): 245–65. <https://doi.org/10.1007/s12027-016-0439-y>; Hatzopoulos Vassilis, and Sofia Roma, “Caring for sharing? The collaborative economy under EU law,” *Common Market Law Review* 54, no. 1 (2017): 81-127. Retrieved from [www.SCOPUS.com](http://www.SCOPUS.com).

<sup>28</sup> See Table 7; Todolí-Signes Adrián, “The ‘Gig Economy’: Employee, Self-Employed or the Need for a Special Employment Regulation?” *Transfer: European Review of Labour and Research* 23 no. 2 (2017): 193–205. <https://doi.org/10.1177/1024258917701381>; Abi Adams, Judith Freedman, and Jeremias Prassl, “Rethinking Legal Taxonomies

the terms discussed in the articles basically fall under the umbrella concept of the term ‘sharing economy’.

While a few limited publications on policy, legal, and regulation in the sharing economy can be found in the common SCOPUS database based on bibliometric analysis, the results show a significant body of research that emphasises the proposed change of management models encapsulating the dynamics of the sharing economy platform.<sup>30</sup> This research examines issues and challenges in

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for the Gig Economy,” *Oxford Review of Economic Policy* 34, no. 3 (2018): 475–94. <https://doi.org/10.1093/oxrep/gry006>; Frances Flanagan, “Theorising the Gig Economy and Home-Based Service Work,” *Journal of Industrial Relations* 61, no. 1 (2018): 57–78. <https://doi.org/10.1177/0022185618800518>.

<sup>29</sup> See Table 7; Quarta Alessandra, “Narratives of the Digital Economy: How Platforms Are Challenging Consumer Law and Hierarchical Organization,” *Global Jurist* 20, no. 2 (2020). <https://doi.org/10.1515/gj-2020-0026>; Alessandro Turina, “Which ‘source taxation’ for the digital economy?” *Intertax* 46, no. 6-7, (2018): 495-519. Retrieved from [www.SCOPUS.com](http://www.SCOPUS.com).

<sup>30</sup> Morgan Bronwen and Declan Kuch, “Radical Transactionalism: Legal Consciousness, Diverse Economies, and the Sharing Economy,” *Journal of Law and Society* 42, no. 4 (2015): 556–87. Vassilis Hatzopoulos, and Sofia Roma, “Caring for Sharing? The Collaborative Economy under EU Law,” *Common Market Law Review* 54, no. 1 (2017):81-127. [www.SCOPUS.com](http://www.SCOPUS.com); Finck, *Digital Regulation*, 1; Rebecca Leshinsky, and Laura Schatz, “‘I Don’t Think My Landlord Will Find Out.’ Airbnb and the Challenges of Enforcement.” *Urban Policy and Research* 36, 4 (2018):417–28. <https://doi.org/10.1080/08111146.2018.1429260>; Ma, Lei Ma, Tao Li, Jinxi Wu, and Dandan Yan, “The Impact of E-Hailing Competition on the Urban Taxi Ecosystem and Governance Strategy from a Rent-Seeking Perspective: The China E-Hailing Platform.” *Journal of Open Innovation: Technology, Market, and Complexity* 4, 3 (2018):35. <https://doi.org/10.3390/joitmc4030035>; Julian Nowag, “When Sharing Platforms Fix Sellers’ Prices.” *Journal of Antitrust Enforcement* 6, 3 (2018): 382–408. <https://doi.org/10.1093/jaenfo/jny007>; Christian Iaione, Elena De Nictolis, and Anna Berti Suman, “The Internet of Humans (IoH): Human Rights and Co-Governance to Achieve Tech Justice in the City.” *The Law & Ethics of Human Rights* 13, 2 (2019): 263–99. <https://doi.org/10.1515/lehr-2019-2008>; 7) Amanda Belarmino, and Yoon Koh, “A Critical Review of Research Regarding Peer-To-Peer Accommodations.” *International Journal of Hospitality Management* 84

the sharing economy. It discusses various proposals for regulating the phenomenon and various options for regulating the platform economy, including self-regulation and co-regulatory models. For example, in the article "Digital Collaborative Supervision: Designing a Super-National Legal Framework for the Platform Economy", Finck claimed that there are major problems with the application of top-down supervision and self-regulation in the sharing economy and proposed co-regulation.<sup>31</sup> In Finck's view, co-regulation would entail collaboration between public authorities and private bodies to regulate the activities, be accountable for such activities, and safeguard public policy objectives as a viable regulatory option. These publications imply that scholars' focus has shifted from whether the sharing economy should be regulated to rather how it should be regulated.

Almost every article reviewed reveals a high emphasis on conceptual research in exploring the policy and regulatory issues of the sharing economy. However, one of the few empirical data publications reported is by Uzunca and Borlenghi.<sup>32</sup> The article 'Regulatory Strictness and Supply in the Platform Economy: The Case of Airbnb and Couchsurfing'<sup>33</sup> uses the Roomscore2 index to relate the relationship between regulatory strictness and platform economy (P.E.) offerings in the U.S. (U.S.) cities quantitatively analyse. In general, the reviewed list seems to lack research that empirically explores the roles and beliefs of users in the sharing economy platform, especially in terms of legal rights and protection.

However, various papers listed in this review explore issues from the perspectives of employment law and consumerism in the sharing economy.<sup>34</sup> Several of these publications discuss the

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(January, 2020): 102315. <https://doi.org/10.1016/j.ijhm.2019.05.011>; Nany Hur, and Jeongjoon Park, "Online Platform Providers in the Sharing Economy: Emergence of New Service Suppliers?" *Journal of World Trade* 54, no. 3 (2020).

<sup>31</sup> Finck, "Digital Regulation," 1.

<sup>32</sup> Uzunca Bilgehan and Andrea Borlenghi, "Regulation Strictness and Supply in the Platform Economy," *Industry and Innovation* 26, no. 8 (2019): 920-942. <https://doi.org/10.1080/13662716.2019.1633278>.

<sup>33</sup> Uzunca and Borlenghi, "Regulation Strictness," 920-942.

<sup>34</sup> Donini Annamaria, Michele Forlivesi, Anna Rota, and Patrizia Tullini, "Towards Collective Protections for Crowdworkers," *Transfer*:

challenges involved in the ‘uberisation’<sup>35</sup> of the labour market and the employment law. Such challenges arise as self-employed workers or independent contractors’ usage of these platforms in their line of work provides an ‘escape’ for employers from adhering to the conventional employment law and providing social protection for these so-called employees.<sup>36</sup> They argued that these workers are disadvantaged for they do not fall within the scope of the employment law protection. They suggested that a better protection via regulation is needed for these workers, including carrying out their jobs through an employment contract and having a fair working condition for a minimum and maximum working time and salary.

When redesigning such regulations, policymakers need answers in order to legally classify the relationship between online platform staff. In Gramano’s article ‘Digitalisation and Work: Challenges from the Platform Economy’,<sup>37</sup> the possibility of providing general and comprehensive answers to such questions is questionable, especially due to the characteristics of each relationship between platforms workers being specific and may vary from situation to situation. However, Gramano<sup>38</sup> raised certain issues that may require further investigation to determine the legal status of the workers. These problems include, first of all, the fact that ‘in most cases, the platform is not just an intermediary between the supply and demand of a particular service, but on behalf of the direct service provider’.<sup>39</sup> This direct provision of services is driven by the activities of the workers. In other words, they fully integrate employees into the platform organisation. Secondly, through the rating mechanism, employees ‘bear illegal responsibility for failure to fulfil their

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*European Review of Labour and Research* 23, no. 2 (2018): 207–23. <https://doi.org/10.1177/1024258916688863>; Christina Hiessl, “Labour Law for TOS and HITs? Reflections on the Potential for Applying ‘Labour Law Analogies’ to Crowdworkers, Focusing on Employee Representation.” *Work Organisation, Labour & Globalisation* 12, no. 2 (2018): 38. <https://doi.org/10.13169/workorglaboglob.12.2.0038>.

<sup>35</sup> The term is attributed to the form of work employed by Uber, an on-Demand company acting in the gig-economy.

<sup>36</sup> Nerinckx, “The ‘Uberization’ of the Labour Market”: 245–65.

<sup>37</sup> Gramano, “Digitalisation and Work,” 1–13.

<sup>38</sup> Gramano, “Digitalisation and Work,” 1–13.

<sup>39</sup> Gramano, “Digitalisation and Work,” 1.

obligations to customers'.<sup>40</sup> Gramano argued that when they exist, these two facts become 'a significant overlap between the business operated by the digital platform and the activities of workers,' and they continue to be applicable to determine the legal status of workers and assess whether labour law protections are applicable.<sup>41</sup>

Data is also important in improving such regulations involving these workers, as several researchers emphasised in their research.<sup>42</sup> For example, Hawley argued that there is a lack of statistics on labour conditions in the sharing economy.<sup>43</sup> Schawe<sup>44</sup> further reiterated the need for the regulators to step in and give the sharing economy-related corporation a statutory data access regime. According to the researchers, sector-specific statutory data access regimes can encourage competition and innovation because user data can be obtained as a by-product of sharing the platform without requiring significant additional investment.<sup>45</sup>

In terms of protection for users in the sharing economy, views vary. For example, one of the researchers, Howells,<sup>46</sup> maintained that there are fewer significant risks or ethical challenges in the sharing economy for users assuming roles as consumers in the traditional sense than in biotechnology fields. According to Howells,<sup>47</sup> although enforcement may be slightly more complicated in cases where only digital content is involved, there are usually means to enforce such rules, and digital payment methods can be used as a control and rules enforcement mechanism. Howells,<sup>48</sup> believed that core consumer

<sup>40</sup> Gramano, "Digitalisation and Work," 4.

<sup>41</sup> Gramano, "Digitalisation and Work," 4.

<sup>42</sup> John Hawley Adrian, "Regulating Labour Platforms, the Data Deficit," *European Journal of Government and Economics* 7, no.1 (2018): 5. Schawe Nadine, "It's All about Data: Time for a Data Access Regime for the Sharing Economy?," *Information Polity*, (May 2020): 1–19. <https://doi.org/10.3233/ip-190206>.

<sup>43</sup> Hawley, "Regulating Labour Platforms," 5.

<sup>44</sup> Schawe, "It's All about Data," 1-19.

<sup>45</sup> Schawe, "It's All about Data," 1-19.

<sup>46</sup> Howells Geraint., "Protecting Consumer Protection Values in the Fourth Industrial Revolution," *Journal of Consumer Policy*, (December, 2019). <https://doi.org/10.1007/s10603-019-09430-3>.

<sup>47</sup> Howells, "Protecting Consumer Protection Values in the Fourth Industrial Revolution."

<sup>48</sup> Howells, "Protecting Consumer Protection Values in the Fourth

protection values could and should be continually maintained in the sharing economy environment. However, the sharing economy also creates a fundamental category change for certain users from traditional consumers who act solely as buyers to consumers acting as sellers, especially sellers of services, as Hawkins emphasised in the article ‘Protecting consumers as sellers’.<sup>49</sup> Online platforms connect these individual buyers of services to individual sellers in the sharing economy. The article discussed how the law has yet to adapt to this fundamental change and fails to protect this new category of consumers.

The other two articles attempt to explore whether platforms like Uber or Airbnb can be considered contractual partners for consumers' essential products and services.<sup>50</sup> Calo and Rosenblat analysed case law involving Uber and other platforms in their article ‘The taking economy: Uber, information, and power’ to study whether and under what conditions a platform can be considered as a contractual cooperation and the problem that may arise from such cooperation. Individuals seek goods and services through the infrastructure of these platforms.<sup>51</sup> The legal basis used by the European Court of Justice and the national courts in describing the role of the platform in providing basic services was pointed out and compared with the method of the intermediary through traditional consumer contract law. Similarly, Domurath, in ‘Platforms as contract partners: Uber and beyond’, contended that various approaches are probable in determining the answer to such a question.<sup>52</sup> The paper outlines a number of case laws relating to platforms and their intermediaries that can be used as a guide<sup>53</sup> or reference in the subject

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Industrial Revolution.”

<sup>49</sup> Jim Hawkins, “Review of Protecting Consumers as Sellers.” *Indiana Law Journal* 94, no. 4 (2019):1407-46. [www.SCOPUS.com](http://www.SCOPUS.com)

<sup>50</sup> Domurath, “Platforms as Contract Partners,” 565–81.; Calo and Rosenblat, “The Taking Economy,” 1623-1690.

<sup>51</sup> Calo and Rosenblat, “The Taking Economy,” 1623-1690.

<sup>52</sup> Domurath, “Platforms as Contract Partners,” 565-81.

<sup>53</sup> See e.g. (UK) *Mr Y Aslam, Mr J Farrar & Others v. Uber B.V., Uber London Ltd., Uber Britannia Ltd*, Employment Tribunal Case No. 2202550/2015, Case C-434/15 *Asociación Profesional Elite Taxi v. Uber Systems Spain, S.L (Uber Spain)*, EU:C:2017:981., Case C-320/16 *Criminal Proceedings against Uber France SAS*, EU:C:2018:221.

of consumer law, which focuses on consumers' perspectives and reasonable understandings of platforms.

A number of the publications have addressed concerns about discrimination on some of the sharing economy platforms.<sup>54</sup> For example, as some of these online platforms use algorithms to determine pay levels, it is claimed that females receive lower pay than their male counterparts.<sup>55</sup> Concerns were also raised by another publication, 'Platform Work, Algorithmic Decision-Making, and E.U. Gender Equality Law'<sup>56</sup> on gender equality law and the principle of equal pay are sufficient and applicable for protecting platform workers in situations where work-related decisions are made by an algorithm that could potentially be discriminatory. Another danger is the issue of consumer-sourced rating systems as a dominant method of worker evaluation in these platform-based work which may be a potential source of bias.<sup>57</sup> According to Rosenblat in his paper 'Discriminating Tastes: Uber's Customer Ratings as Vehicles for Workplace Discrimination', Companies' reliance on potentially biased consumer ratings to make substantial determinations may have an undue influence on employment results.<sup>58</sup> The paper also analysed and explored the limitations of present regulations, as well as operational, legal, and design-based solutions to this problem.

Apart from employment law and consumerism issues, concerns regarding taxation regime in the sharing economy were the main focus in at least three publications reviewed.<sup>59</sup> In 'Rethinking legal

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<sup>54</sup> Helmut Werner, "Review of Sharing Economy: Opportunities and Threats," Jusletter, accessed June 3, 2021, [www.SCOPUS.com](http://www.SCOPUS.com); Arianne Renan Barzilay, "The Technologies of Discrimination: How Platforms Cultivate Gender Inequality," *The Law & Ethics of Human Rights* 13, no.2 (2019): 179–202. <https://doi.org/10.1515/lehr-2019-2006>; Kullman, "Review of Platform Work," 1-21.

<sup>55</sup> Barzilay Renan, "The Technologies of Discrimination," 179–202.

<sup>56</sup> Kullman, "Review of Platform Work," 1-21.

<sup>57</sup> Hawkins, "Review of Protecting Consumers," 1407-46.

<sup>58</sup> Rosenblat, Levy, Barocas, and Hwang, "Discriminating Tastes," 256-79.

<sup>59</sup> Turina Alessandro, "Which 'source taxation' for the digital economy?" *Intertax* 46, no.6-7 (2018): 495-519. Assessed from [www.SCOPUS.com](http://www.SCOPUS.com); Adams, Freedman and Prassl, "Rethinking Legal Taxonomies" 475–94; Francesco Cannas, Calogero Vecchio, and Davide Pellegrini, "Review of a New Legal Framework towards a Definitive EU

taxonomies for the gig economy',<sup>60</sup> the authors examined the evidence behind the emergence of the gig economy in the U.K. They suggested some key principles as a guideline in reforming the tax rules and employment law to better meet the underlying objectives of the policy. In Turina's 'Which 'source taxation' for the digital economy?', a detailed discussion on the complexity of tax policy agenda from the OECD and E.U. countries and the uncertainty involved when it comes to proposing a possible tax policy models in the digitalisation economy phenomena was the main focus of the article.<sup>61</sup> The article is also concerned with the need to address the interaction between policy and law and how any possible policy tax reform may be pursued not to disrupt the existing legal framework.<sup>62</sup>

Several of the publications reviewed for this paper also focus on various aspects of sharing economics that can be more difficult to grasp empirically. These aspects include ethical and confidentiality issues but remain important aspects in developing policies and regulations that are fair to all parties.<sup>63</sup> One example is by Ahsan, in the paper 'Entrepreneurship and ethics in the sharing economy: A critical perspective'.<sup>64</sup> Ahsan is critical towards the claim by the owners of the sharing economy platform that the platform's workers are independent contractors under the law; in other words, they are viewed as entrepreneurs rather than the entrepreneurs' employees. Ahsan, using a stakeholder theory framework, argued that these claims are problematic. He concluded that the sharing economy platform organisation abuses the idea of workers as partners in entrepreneurship to defend particular types of employment practises and bypass adhering to certain regulatory requirements in labour matters.<sup>65</sup>

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VAT System: Online Hosting Platforms and E-Books Reveal Unsolved Problems on the Horizon," *Intertax* 46, 8-9 (2018): 690-98.

<sup>60</sup> Adams, Freedman and Prassl, "Rethinking Legal Taxonomies," 475-94.

<sup>61</sup> Turina, "Which 'source taxation'," 495-519.

<sup>62</sup> Turina, "Which 'source taxation'," 495-519.

<sup>63</sup> Ahsan Mujtaba, "Entrepreneurship and Ethics in the Sharing Economy: A Critical Perspective," *Journal of Business Ethics* 192, (July, 2018): 19-33.

<sup>64</sup> Ahsan Mujtaba, "Entrepreneurship and Ethics," 19-33.

<sup>65</sup> Ahsan Mujtaba, "Entrepreneurship and Ethics," 19-33.

In a nutshell, policy and legal regulatory research in the sharing economy have changed over the years along with the exponential usage of various online platforms in the sharing economy. However, most of these research contributions are not backed by empirical data and are conducted from a sole disciplinary research perspective. This concern may hinder a more well-rounded regulatory policy decision making. Therefore, more future research will need to be conducted and advanced to include empirical data-based studies. In addition, research must consist of interdisciplinary perspectives to provide legislative clarification and shape a relevant and justified policy, legal and regulation in dealing with the sharing economy phenomena.

## CONCLUSION

This study outlines the research contributions related to policy, legal and regulation in the sharing economy. In addition, the study assessed how these studies have influenced policy and regulatory discussions so far. The research relies on a bibliometric analysis of academic literature on sharing economy policies, regulations, and laws published in SCOPUS indexed journals. After bibliometric analysis, a systematic review of the literature was conducted to research policies and supervision in the sharing economy. Although bibliometric methods can effectively identify the core topics in journals and their network relationships, they can identify and evaluate key research contributions, identify research gaps, and combine systematic literature reviews to propose further research directions.

The bibliometric method has shown that although the sharing economy is one of the main research interests in the SCOPUS database, there has been limited focus on policy and regulatory issues. Moreover, until recently, only a few studies have investigated the impact of the sharing economy on the legal aspects of human life. Research into how to solve the problems associated with these exchange platforms, based on empirical evidence and common law, is badly needed. To date, research efforts appear to focus on the challenges of the dominance of the sharing economy on these platforms but leave out the nature and complexities of the sharing economy.

While it is encouraging to see the interest in policy and regulatory research in the sharing economy, there is still a scarcity of

empirical data on the trend's most crucial pillars; its (human) users. Therefore, awareness of technological advances and their role in supporting these platforms is crucial. Only then can policies and regulations be developed to address these advances. Nevertheless, future studies should delve deeper into the role of users in the sharing economy. It would be valuable to understand how users perceive themselves in the sharing economy ecosystem from a variety of perspectives, especially from a legal perspective, and how technological advances support future policy and regulatory decisions.