The Intellectual and Conceptual Foundations of Moonlighting – A Bibliometric Study

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Abstract: Moonlighting or holding multiple jobs simultaneously to realize a boundary-less career is a trending labor market phenomenon. Factors like the rise of the gig economy in the present digital age, socioeconomic disparities, and psychological factors like motivation, etc., have been some of its key drivers. The advent of remote working as a global response to sustain business activity amid COVID-19 has also acted as a catalyst to amplify this trend further. This research leverages a bibliometric approach to analyze the past body of knowledge through the R Package to illustrate emerging themes and avenues for future research.

Keywords: Bibliometric, COVID-19, Gig Economy, Labor Market, Moonlighting

1.   Introduction

Moonlighting is a phenomenon where an individual holds more than one job simultaneously arising due to harsh economic conditions [1] and is also closely related to job satisfaction [2]. There have been several studies on the concept of moonlighting; one of the earliest studies about half a century ago identified moonlighting as a product of relative deprivation [3]. Traditionally, moonlighting was identified as an aspect of careers in farming [4,5]. There have also been associations of moonlighting with artists [6], teachers [7], and healthcare professionals [8].

Moonlighting or side hustles have also been studied from the perspective of the labor market context of various countries. While the USA has been at the forefront of studies pertaining to multiple jobs [9], there have also been studies from European countries [10,11]. The labor market dynamics of the developing world have also not remained isolated from the advent of this phenomenon, and the body of knowledge in this field has been enriched by contributions from Africa [1,12], southeast Asia [6], and South Asia [13,14].

Researchers have also focussed on the socioeconomic aspects of moonlighting. A specific focus has been given to the dimensions of gender [15] and family [16,17]. The reasons for moonlighting have been studied from various socioeconomic angles like the role of age, skills, financial status, and job satisfaction levels from a primary or second job [18,19]. Public sector employees seeking a secondary career in the private sector have been given much attention by researchers exploring moonlighting [20,21].

In recent years, technological advancements have brought about significant transformations within the field of Human Resources (HR) [22]. The emergence of the gig economy and how it became prominent with the advent of technology and technology-powered side hustles like Uber [23] have acted as a catalyst in pushing the moonlighting tendencies of the labor market [24]. The Covid-19 pandemic led to a financial crunch and a sense of insecurity among workers. The imposition of

lockdowns, working from anywhere, led to a further spike in multiple job holders, especially in the technology-led services sector [25,26], infact most of the interviews held are also happening virtually rather than in-person interviews [27].

The corpus of research in this field has been developed around a wide range of focus areas, labor market implications, multi-disciplinary agendas, and unique natures of employment dynamics in various industry sectors. The advent of moonlighting since the pandemic has shifted the spotlight back on this topic as some unprecedented mass lay-offs and objections have been raised by the Information technology sector in India. Most prominent IT consulting players have unanimously cited moonlighting as unethical and contradictory to the general employment terms [28,29]. There are debates around whether moonlighting is illegal or unethical, whether the legal framework for multiple employment needs to be revisited, and whether employees and employers must adapt to redefine the rules of the labor market for the new normal. While such debates are essential, and research needs to complement the industry by creating new knowledge in this space, it is also necessary to assimilate how moonlighting has evolved over the years; unfortunately, there have been minimal attempts, and it still remains a research gap. A bibliometric analysis to elaborate the performance and scientific mapping of the research literature generated so far would serve as a launchpad to foray into unexplored and underexplored themes for future academic research.

This research article aims to trace the evolution of this phenomenon of multiple job-holding and assess the paradigm of studies that have accumulated through time by answering the following research questions:

RQ1: What is the process of scientific production in the field of moonlighting and which are the most impactful research constituents?

RQ2: What is the intellectual structure and how do the various themes situate in the trajectory of this field?

RQ3: What are the prominent social collaboration networks?

2.   Literature Review

2.1   Historical Context

The early literature on moonlighting relates to the labor supply function of the upper limit on the number of hours in the primary job, and hence workers seeking a new primary employment with a higher number of work hours or a second job with additional work hours for extra money [30,31]. The research was later extended to multiple dimensions, like married men and the influence of wives holding a job on their moonlighting tendencies [32,33]. Casual work relations of hired farm labor and their exclusion from unemployment insurance programs in the USA shifted focus to moonlighting in the agriculture sector, which also has many migrant workers [4,34]. The sectoral studies expanded to healthcare professionals, teachers, and civil servants shortly after [35-37]

2.2   Major Reasons for Moonlighting

The reasons for moonlighting vary by region, sector, and the time slice under consideration. Listed below are some of the primary drivers identified from the literature. Meeting household expenses, paying off debts, and engaging in work in the

second job are some of the reasons for workers moonlighting [19]. Researchers propose that holding a 'job portfolio' enables workers to hedge the risk of losing their primary job and seek job satisfaction through a second job and training for utility enhancement and career growth [38,39].

2.3   Consequences of Moonlighting

Moonlighting impacts the workers from mental stress and organizational belongingness perspective unless mediation is provided through work engagement [40]. It is also found that in certain professions, moonlighters are not swayed by financial motives, and even after taking up second jobs, they do not compromise on their primary jobs from a focus perspective [35] while in some other professions, moonlighting induced fatigue [41] or semi-skilled moonlighters can have fatal consequences [42]. The liabilities of moonlighters in the second category also raise ethical questions about whether engineers should moonlight and debates about what is legal but unethical [43].

2.4   Moonlighting and Skills Development

Workers engaged in dual jobs with a second job that requires intelligent work acquire new skills and prove helpful in their primary jobs. However, the same isn't true about the workers where the second job is physical; it often leads to fatigue and deterioration of productivity [44]. Various industrial sectors are becoming technology-intensive, and acquiring new skills is necessary for modern-day workers. A second job works as a conduit to facilitate skills development. Different organizational settings enable learning by doing and learning by experience, which works positively in the accumulation of human capital, helping them to be better prepared for a job transition [39].

2.5   The Influence of the Gig Economy

Technology advancements have gradually altered the workplace and created alternative work arrangements or gig jobs. Technology has also brought down the cost of landing a new job in terms of effort, trust, evaluation, physical travel, etc., thereby creating a conducive environment for freelancers and contractors [45]. The motivations for allocating effort to gig jobs differ from the traditionally identified drive of working beyond the allocated work hours by gender. While the driver for men in gig jobs is more money, women take up gigs due to insecurities in their primary jobs. Women, however, were more affected by depression in their gigs [24].

2.6   Moonlighting Post-Pandemic

COVID-19 was an unprecedented event, and it significantly impacted the rules of a traditional workplace and normalized remote working for many job types [46]. As the businesses were adversely affected, workers constantly feared losing their jobs, especially in sectors that were worse hit, like hospitality [47]. The looming job cuts and lack of knowledge about unemployment assistance for workers in the low-income segment meant that the search for gig jobs increased manifold, highlighting the pain and inequity of the pandemic, where side hustles became the primary safety net of the poor.

3.   **Research Methodology**

This research employs bibliographic techniques to quantitatively analyze large sets of bibliographic information, including fields like title, author, journal, doi, abstract, author keywords, affiliation, and references. Such an analysis illustrates meaningful insights like productivity, impact measures, and scientific mapping representing knowledge networks [48,49]. The data required for this analysis can be extracted from research databases like Scopus and Web of Science.

Such studies were considered effort-intensive and highly time-consuming before the advent of analytical packages and tools to enable scientific analysis and draw meaningful insights [50]. Many such packages are available for research, with each having unique capabilities and limitations vis a vis each other such as Gephi, Bibliometrix for R Studio, Leximancer, and VOSviewer [49,51]. The Bibliometrics package for R has been shortlisted and leveraged for this study as it has strong capabilities organized in modules to yield comprehensive insights. It is based on open-source technology and is available free of cost for scholars. It also has an easy-to-navigate web interface to make it easy to use for scholars without any technical background [48].

The data required to conduct this study was sourced from Scopus, one of the world's largest repositories of peer-reviewed research articles. The following search query seeking a combination of words related to moonlighting in the title or abstract or keywords was used to fetch the initial set:

- *"Dual Job Holding" OR "Dual Jobholding" OR "Multiple Job Holding" OR "Multiple Job Holding" OR "Several job* holding" OR "Several jobholding" OR "holding several job*" OR "Moonlight*" OR "holding two job*" OR "holding more than one job" OR "secondary job holding" OR "secondary jobholding" OR "Multiple-job holding" OR "Dual- job" OR "side hustle "OR side-hustle OR "supplementary livelihood" OR "second job"*

Boolean operators (OR) and wildcard characters (*) were utilized in this query to combine multiple criteria and cater to variations in word forms and plurals to generate an adequate dataset. Moonlighting is also a concept related to proteins [52], and there are many references to the phrase moonlighting in creative arts like cinema and poetry [53]. Hence, only disciplines related to management were included in the final data set for analysis. Fig. 1. provides a step-by-step reduction of the dataset based on various exclusion criteria. As a result, we shortlisted 392 relevant documents from the 3881 produced as the output of the original search query. The finalized data set was loaded into *Bibliometrix* through the *Biblioshiny* package, and various measures were identified and analyzed.
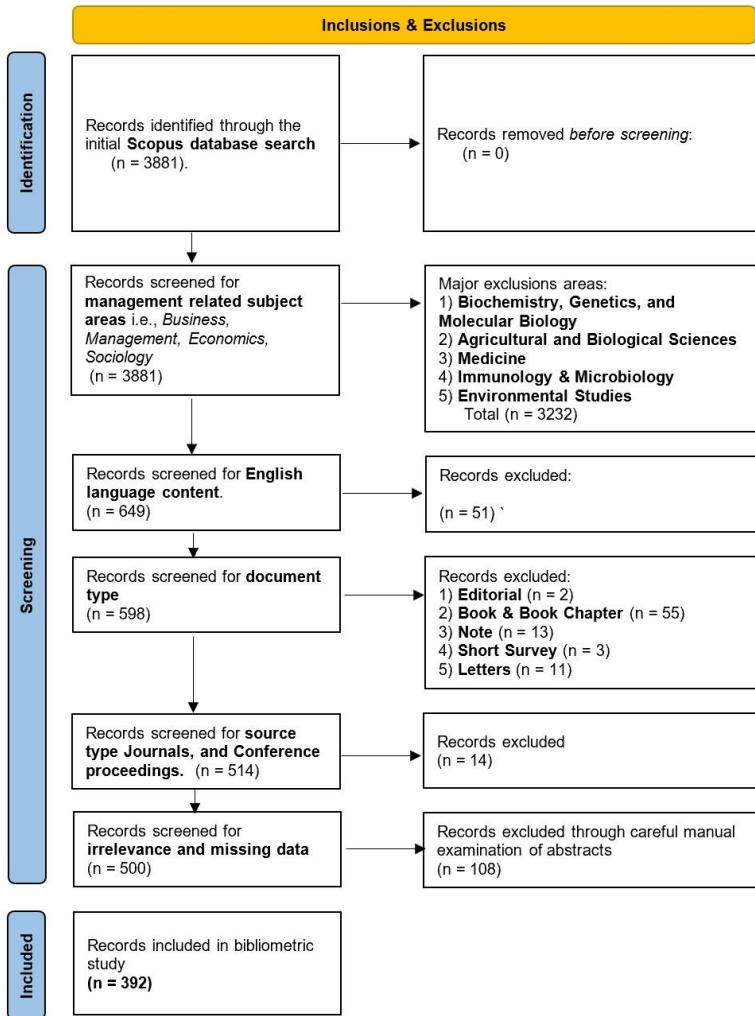
Fig. 1. Inclusion and Exclusion Criteria

4.   Results and Discussion

The output of the Bibliometric analysis was exported, organized, and evaluated for insights in line with the research questions articulated in the introduction section of this paper. The summary of the results of this exercise is presented in the following subsections:

4.1   Volumetric Analysis and the Process of Scientific Production

Table 1 highlights the overall profile of the dataset included in this analysis. Moonlighting has been a research topic for over 50 years, and the publications have

grown at an annual growth rate of ~5%. As the field of study has multiple dimensions, the 392 documents sourced for this analysis have come from 273 different journals cutting across fields like labor studies, geographic studies, management studies, psychology, sociology, etc. While Co-authors per document is an impressive number of 2.2, the international co-authorship stands at 15.5%, which is relatively low compared to other global phenomena like sustainability or pandemics. A reason for low international co-authorship is that the implications of moonlighting are highly localized based on country, job sector, principal discipline of research, etc., as established in the introduction of this research.

Table 1. Data Set Profile

Description	Results
MAIN INFORMATION ABOUT THE DATA	
Timespan	1963:2022
Sources (Journals, Books, etc.)	273
Documents	392
Annual Growth Rate %	4.92
Document Average Age	13.8
Average citations per doc	16.64
References	13467
DOCUMENT CONTENTS	
Keywords Plus (ID)	888
AUTHORS	
Authors	756
Authors of single-authored docs	145
AUTHORS COLLABORATION	
Single-authored docs	154
Co-Authors per Doc	2.12
International co-authorships %	15.56
DOCUMENT TYPES	
Article	357
Conference paper	4
Review	31

Fig. 2. presents the annual production over the last 59 years. There is a clear upward trend in the publication rate with an exceptionally high spike post the Covid-19 pandemic.

As evident from Fig. 3. most publications in this field originated from the developed world, with the USA, UK, and Canada leading the pack. Iran, India, Israel, Ghana, and Indonesia are also emerging contributors to the field of moonlighting research; however, there is minimal multicountry collaboration.
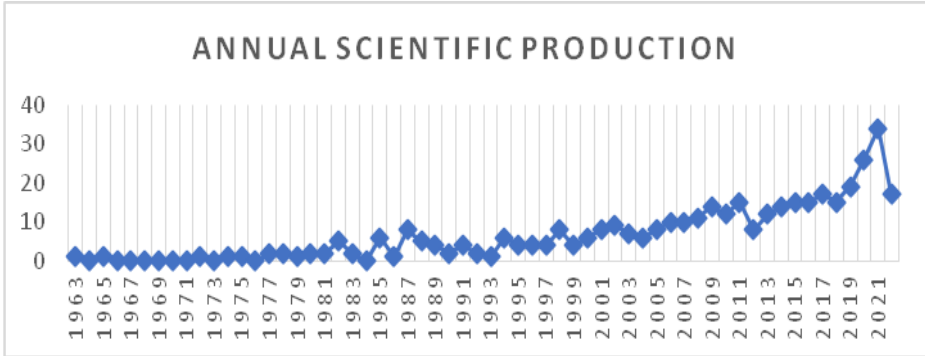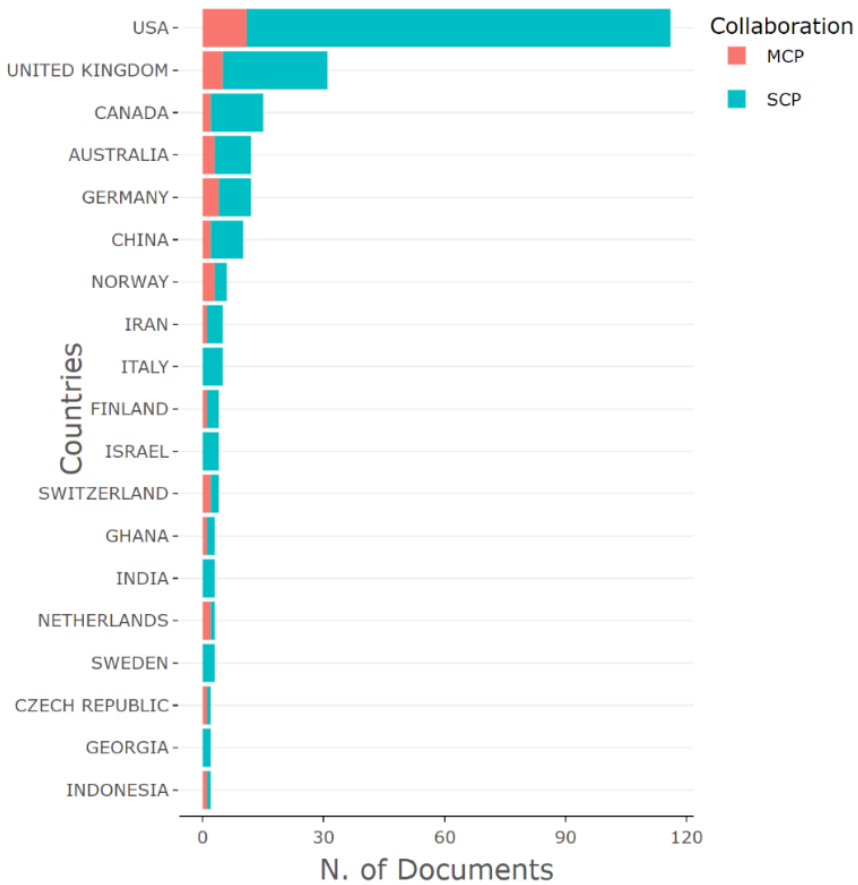
Fig. 2. Annual Scientific Production

Fig. 3. Author Countries

SCP: Single country publication (Intra country),
MCP – Multiple country publication (Intercountry)

4.2   Prolific Contributors to this Field

Tables 2 and 3 present the most impactful Journals and Authors within the dataset included for analysis. The impact is assessed through standard indices, namely h_index, g_index, and m_index, which are globally recognized scientific measures. H_index proposed by Hirsch represents the number of articles published that received the same number of citations – this number is represented by h and called the h index of a publishing entity, e.g., a Journal or an author [54]. The G_index works on similar lines as H_index; however, it represents the number of articles 'g' that receive g^2 citations, where g represents the g_index of the publishing entity. The g_index is considered a slightly refined measure of the publication impact [55]. While both the h and g indices are excellent measures of a publishing entity's productivity and quality, both are marred by a limitation: they don't compensate for older publications' ability to garner more citations. Hence another measure was required that neutralizes that advantage and gives due consideration to equally good newer publications. M_index is one measure calculated by dividing the h_index by the number of years since the publication start year [56].

   As evident from Table 2, the Journal of Applied Economics has the maximum number of publications (11), with the highest h and a very high g index. The Journal of Academic Medicine and Human Resources for Health ranks among the top three due to extensive studies on the moonlighting tendencies of healthcare professionals [57,58]. The journals of Human Resources for Health and Industrial Relations, although relatively new and with lower total citations, rank high on the m_index, making a statement that while they are new, they are the most impactful journals.

Table 2. Relative Performance of the Top 10 Journals
Included in this Study

Source	h_index	g_index	m_index	TC	NP	PY_start
Applied Economics	7	11	0.184	200	11	1985
Academic Medicine	6	6	0.188	237	6	1991
Human Resources For Health	6	7	0.375	155	7	2007
Industrial Relations	5	6	0.227	163	6	2001
Journal Of Vocational Behavior	4	4	0.089	89	4	1978
Labour Economics	4	6	0.16	157	6	1998
Sociologia Ruralis	4	5	0.1	46	5	1983
Transfer	4	5	2	27	6	2021
Academic Psychiatry	3	7	0.103	118	7	1994
Agricultural Economics	3	4	0.086	41	4	1988

TC – Total Citations, NP – Number of publications,
PY_Start – Publication start year

   Table 3 indicates the relative performance of the top authors contributing to the field within the dataset. Jean Kimmel has been one of the most prolific authors with studies to explore the reasons behind moonlighting, their economic consequences, and the cyclicalities of moonlighting by gender based on longitudinal data [18,59]. John V Winters is another significant author in this field, studying the relationship between US labor market characteristics and business cycles with moonlighting [38]. A lot of Winter's research work has been produced in collaboration with Barry Hirsch, another eminent author in this field.

Table 3. Relative Performance of the Top 10 Authors
Included in this Study

Author	h_index	g_index	m_index	TC	NP	PY_start
Kimmel J	4	4	0.16	148	4	1998
Winters Jv	4	4	0.308	53	4	2010
Zangelidis A	4	4	0.333	117	4	2011
Baldwin Jr Dc	3	3	0.143	154	3	2002
Daugherty Sr	3	3	0.143	154	3	2002
Hirsch Bt	3	3	0.429	40	3	2016
Ashmore J	2	2	0.2	53	2	2013
Bedi As	2	2	0.08	99	2	1998
Boyd Em	2	2	0.222	54	2	2014
Bruns A	2	3	0.5	26	3	2019

TC – Total Citations, NP – Number of publications,
PY_Start – Publication start year

Table 4 presents the relative ranking of the top 10 documents created in this field. In addition to the local citations within the dataset, global citations and normalized citation scores have been leveraged to review the relative performances. Normalized scores work similarly to m_index and enable a better comparison of recent publications with older publications [60].

Other than the seminal work of Kimmel around 'who moonlights and why,' Susan Averett's work on moonlighting motives and gender differences has been very significant. It establishes that moonlighters are less likely to report their incomes [14]. The work of Christina Paxon focuses on mobility in and out of the second job, and the findings suggest that the upper limit on working hours is one of the critical drivers for moonlighting [30]. Georgios Panos's research investigates moonlighting in the UK; It suggests that people moonlight to acquire new skills and are more likely to switch their primary career or take self-employment [39].

Table 4. Relative Performance of the Top 10
Publications in this Study

Document	Year	LC	GC	Normalized LC	Normalized GC
Kimmel J, 2001, Ind Relat	2001	27	56	3.86	1.96
Averett Sl, 2001, Appl Econ	2001	27	44	3.86	1.54
Paxson Ch, 1996, J Labor Econ	1996	24	61	4.00	3.87
Panos Ga, 2014, Ind Relat	2014	23	53	6.44	2.92
Smith Conway K, 1998, Labour Econ	1998	23	53	4.84	3.07
Dickey H, 2011, Appl Econ	2011	19	32	8.38	1.30
Wu Z, 2009, Appl Econ	2009	17	34	9.15	2.27
Sliter Mt, 2014, J Organ Behav	2014	15	37	4.20	2.04
Hirsch Bt, 2016, Iza J Labor Econ	2016	14	20	7.50	1.28
Hipple Sf, 2010, Mon Labor Rev	2010	12	38	4.50	1.57

LC – Local Citations (within the dataset), GC –
Global Citations (Total)

4.3   Network Relationships

Fig. 4. Co-authorship Network

Fig. 4. provides a look into major co-authorship networks in this field. It presents a social network of authors connected through geographical similarities and mutual interests in themes and theories. These networks enable researchers to identify the pathways to seminal literature by tracing the intellectual relationships formed by the contributors in that field from multi-disciplinary and regional backgrounds. Such networks are characterized by a node and a connector where the node's size represents the author's significance, and the connector's thickness marks the volume of publications [61,62].

As seen in Table 1, out of the 392 publications, 238 have been authored by more than one contributor, with an average of 2.2 authors per publication. One of the prominent sub-networks is the one formed by Hirsch-Winters and Husain; it is primarily an all-American network with a deep interest in the economics of labor markets.

Another network is anchored around Alexandros Zangelidis, who has collaborated with authors from the UK to explore the unique labor market implications of moonlighting in the UK and Europe. Some of the collaborations in this network include explaining the non-financial reasons for moonlighting, gender-specific moonlighting tendencies in Greece [63], moonlighting, and absenteeism from primary jobs [64]. Heather Dickey, Livanos, and Georgios Panos are some of the key collaborators in this network. Moonlighting has been a characteristic of healthcare workers, and many studies have aimed to understand the drivers and implications of dual jobs of resident doctors and nurses and the importance in terms of lack of attention in primary jobs, stress-related errors in primary employment, and so on [65]. The network formed by DeWitt Baldwin and Steven Daugherty specializes in staff moonlighting and explaining the determinants in the context of healthcare workers.
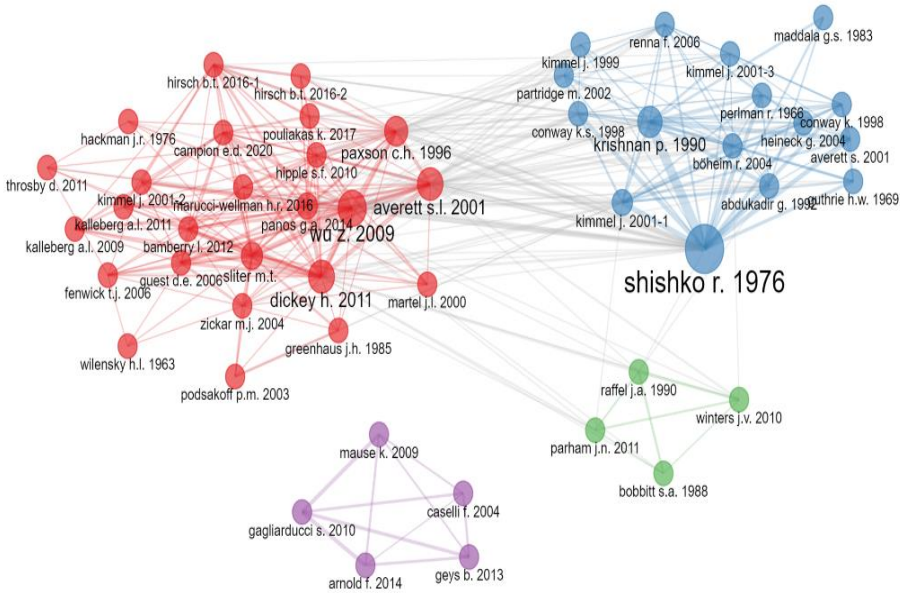
Fig. 5. Publication Co-Citation Network

Fig. 5. presents the co-citation network formed based on the references cited by the documents included in our data set. Co-citation networks are created by using statistical clustering techniques and capture the references that have been mentioned together in the various articles. Such scientific mapping enables the discovery of seminal research and identification of knowledge themes while concentrating only on influential work in the field. The node's size represents the number of citations received within the dataset, and the link's thickness indicates the frequency of co-citation between two documents [66].

The co-citation Network for Moonlighting Suggests there are Four Distinct Clusters

Cluster 1 (Blue): This cluster is anchored around the seminal work of Shishoko [31] and Pramila Krishnan [33]. These two fundamental researches are pivotal to developing knowledge in the sub-area of the economics of moonlighting and have been cited together with a strong relationship and have been extended by prominent authors like Jean Kimmel and Conway.

Cluster 2 (Red): This cluster is bound together by the works of Dickey, Averett, and Wu Z. This cluster is more hybrid in representing research from the UK, Europe, and the USA. The results in this cluster are focussed on elaborating the dynamics of multiple job-holding covering aspects like financial constraints, job satisfaction, couples utilizing their collective available working hours to maximize earnings, gender dynamics, business cycle dynamics, and so on.

Cluster 3 (Green): This cluster focuses on the specific aspect of moonlighting in the teaching profession; however, the research being co-cited is cross-geographical. The work of Bobbitt, Winters JV, and Parham are some of the primary co-cited studies in this cluster.

Cluster 4 (Purple): This cluster includes seminal work analyzing moonlighting in the context of Parliamentarians and legislators. The publications by Arnold, Gagliarducci, and Mause reflect a high degree of betweenness to each other.
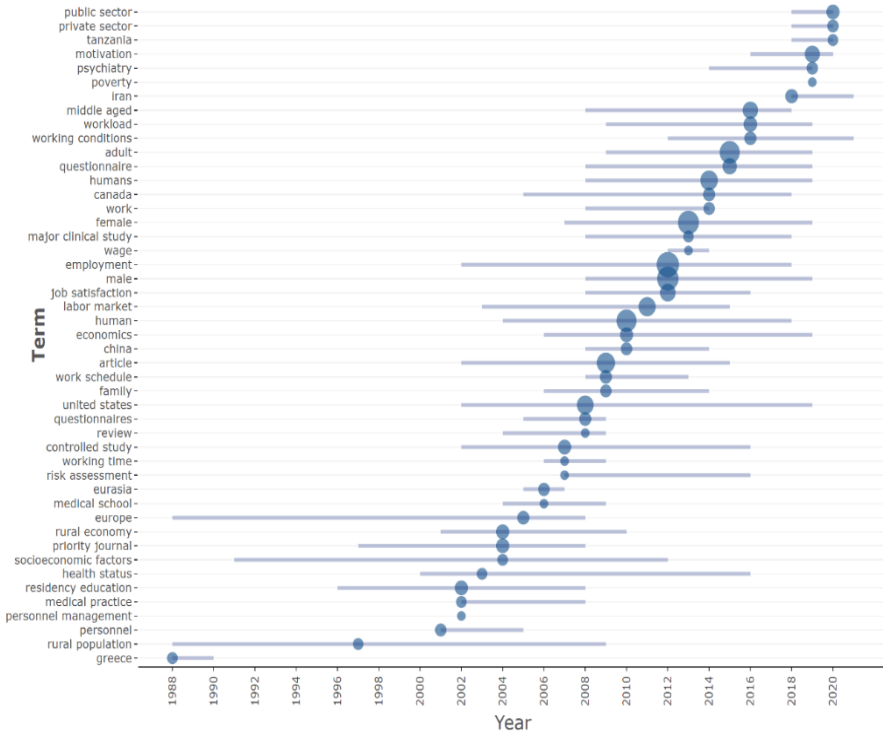
4.4 Keywords and Thematic Analysis – Conceptual Structure

Fig. 6. provides a view of the keyword co-occurrences within the documents selected in our dataset. Keyword co-occurrence network shows the interconnectivity between various themes that are closer to each other in context and usage. Like other network diagrams, nodes and links represent keyword co-occurrences. The thickness of the link informs the number of co-occurrences, and the node's size informs about the keyword's significance and the number of occurrences within the selected publications [49].

This analysis yielded two distinct clusters of keyword linkages represented by 'red' and 'blue' colors, respectively. The 'red' cluster represents the labor market context of the keywords with 'employment,' 'labor supply,' 'Countries, e.g., the UK, Greece,' and 'sectors, e.g., rural agriculture, forming the significant elements that appear together. The 'blue' cluster has demographic variables like 'male,' 'human,' 'adult,' 'family,' etc., connected with the manifestations of moonlighting like 'job satisfaction,' 'income,' 'motivation,' and 'workload.'

Fig. 7. arranges the frequently occurring keywords on a timeline to illustrate the trending themes at a particular point in time. The bubble size on the timeline indicates the relative number of occurrences for that specific keyword. The chart shows that the initial studies focussed on moonlighting in rural economies and healthcare professions and determining the socioeconomic causes and implications of the phenomenon. The period 2004-2014 witnessed the emergence of topics like gender differences, labor market dynamics, wages, job satisfaction, etc. The phase 2014 to date saw a high amount of focus on related aspects like workload, working conditions, and a public-private sector-based differentiation of moonlighting characteristics.

It is a bit surprising that keywords like the gig economy, moonlighting in the information technology sector, the impact of COVID-19, and work from anywhere topics haven't emerged on the top of the list in the period 2019 to date.

Fig. 6. Keyword Co-occurrence network

Fig. 7. Trending Themes

Fig. 8. provides a topic dendrogram created through hierarchical clustering and represents the hierarchical relationships between the keywords. The diagram was generated through the 'multi-dimensional scaling' method and split the top forty keywords into four distinct clusters representing four particular thematic slices. The clustering method assigns the keywords to respective thematic buckets by calculating the height of the corresponding keywords within each group. The lesser the heights of the keyword, the closer those objects are to each other and vice versa [67]. The dendrogram communicates that the flow of knowledge in moonlighting encapsulates themes like Socioeconomic conditions and rural economy; moonlighting studies for healthcare professionals; moonlighting concerning the unique labor market conditions of different geographical regions; and moonlighting in the context of work environment, motivation, work quality, and gender-specific characteristics.
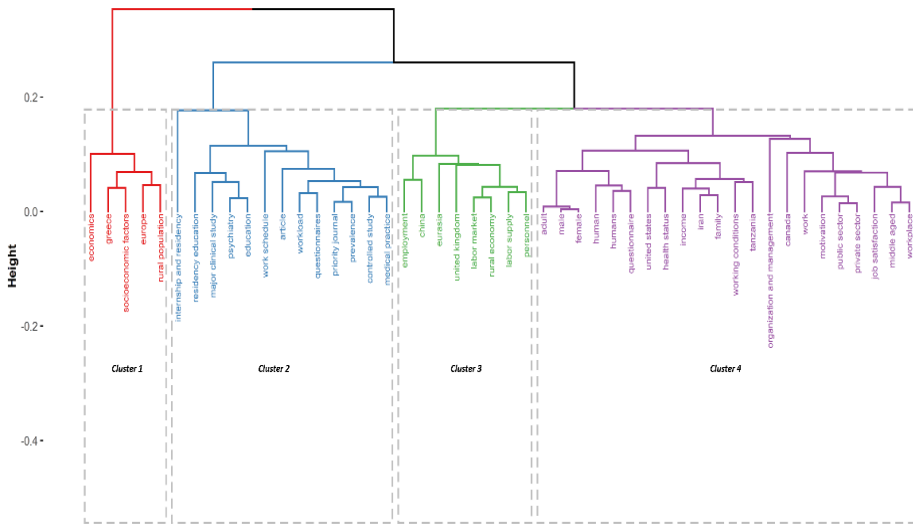
Fig. 8. *Topic Dendrogram*

5.   Further Research Avenues

5.1   Examining the influence of the gig economy and pandemic

As seen in Fig. 7. it is surprising to note that despite being game-changing events in workplace dynamics, the gig economy and COVID-19 failed to emerge as trending topics in recent years, and only a limited number of researches have focussed on their impact on moonlighting. Further research on these topics can yield valuable knowledge in this field.

5.2   Expanding the definition of moonlighting

Traditionally, moonlighting has been defined as holding two jobs simultaneously; however, the definition must evolve and expand on variations of multiple job-holding so that employers can develop clear employment terms and policies. Some of the variations include:

- Working two jobs in different shifts
- Working for the second job over the weekends
- Working voluntarily without any salary in addition to a primary job
- Self-employment outside the working hours of the primary job

Most of the literature captured for this bibliometric study doesn't provide a clear point of view on such scenarios and their relative influence on the primary jobs and in terms of one becoming more objectionable than the other for the primary employer.

5.3   Researching the Perspective of Primary Employers

There wasn't any literature capturing how primary employers perceive moonlighting. Do they find it unethical, illegal, detrimental to their productivity, or a conduit for

theft of intellectual property, or do they appreciate the positive influence on workers' attitudes and skills? Exploring the boundaries of the aspects they consider good, and evil can lay the foundation for shaking up the employment terms and legal framework and developing policies to discourage or encourage moonlighting.

5.4   Moonlighting in the Information Technology Sector

The information technology sector runs primarily on a computer and can be discharged from any location. With rising remote working and without proper monitoring of worker activities, there is a possibility of a surge in moonlighting in the future. Working for competition, sharing the code base for reusable components, or not attending to simple tasks and deeming them as complex and time-consuming could be some of the critical challenges worth exploring to build knowledge in this field.

5.5   Moonlighting in the Indian Context

Hardly any literature addressed moonlighting from an Indian labor market context. While labor market economics and its relationship with moonlighting have been studied extensively in the USA and European region, a dynamic and rapidly evolving market like India must be researched so that academia can lead the way in shaping future workplace trends. Especially given that large IT companies are reacting to moonlighting and have already started formulating policies based on business research, which might lead to lop-sided policies that are unfavorable for the employees.

6.   Conclusion

The research assimilates the past body of literature in the field of moonlighting, generated over more than five decades of research. The aims of this study, stated in this article's introduction section, required a thorough volumetric and scientometric analysis of the data set. The paper met the purposes of the research by capturing and discussing the following:
1.   The process of scientific production
2.   The prolific contributors to the field
3.   The intellectual and social networks of collaboration
4.   Thematic analysis and keyword dynamics
   The paper also elaborated on specific under-represented themes and potential future research areas by skimming the body of knowledge. Moonlighting has been in the news in India due to concerns raised by prominent IT players; however, the body of knowledge suggests that little research has been conducted on moonlighting in the Indian context, and there is a need to expand the footprint of quality research in top peer-reviewed publications.
   While the author believes that the research objectives at the outset have been met, the study has its limitations that may be focussed on by future researchers. Following are some of the limitations of this research:
1.   The paper is based on the Scopus database, which presents an extensive collection of peer-reviewed articles; however, including data from the Web of Science, Google Scholar, etc., could enrich the research further.

2. Bibliometrix for R has been used to perform the analysis. Some features and visualizations work better in other software like VOSviewer, Gephi, etc. A mixed tooling approach can provide better analysis and insights.
3. The bibliometric approach was chosen to understand the trajectory and paradigm of the existing body of knowledge. Additional Meta-analysis to validate empirical evidence and systematic reviews to distill research in a narrow aspect of moonlighting and to identify new areas of empirical research and theory building can be very valuable.
4. The author's linguistic limitations meant that only English language content was included.

References

1. Nunoo, J., Darfor, K. N., Koomson, I., & Arthur, A. (2018). Employment security and workers' moonlighting behavior in Ghana. Journal of Economic Studies, 45(1), 144–155. https://doi.org/10.1108/JES-04-2016-0074
2. Seema, Choudhary, V., & Saini, G. (2021). Effect of Job Satisfaction on Moonlighting Intentions: Mediating Effect of Organizational Commitment. European Research on Management and Business Economics, 27(1), 100137. https://doi.org/10.1016/j.iedeen.2020.100137
3. Wilensky, H.L. (1963), The Moonlighter: A Product of Relative Deprivation. Industrial Relations: A Journal of Economy and Society, 3: 105-124. https://doi.org/10.1111/j.1468-232X.1963.tb00812.x
4. Laurent, C. (1982). Multiple job holding farmers in agricultural policy. GeoJournal, 6(4), 287–292. https://doi.org/10.1007/BF00240529
5. Waldo, A. D. (1965). The Impact of Outmigration and Multiple Jobholding upon Income Distribution in Agriculture. Journal of Farm Economics, 47(5), 1235. https://doi.org/10.2307/1236380
6. Yoon, S., & Heo, S. (2019). Artists' labor supply behavior for multiple job holding: Evidence from Korea. Journal of the Asia Pacific Economy, 24(2), 165–181. https://doi.org/10.1080/13547860.2019.1581320
7. Parham, J. N., & Gordon, S. P. (2011). Moonlighting: A Harsh Reality for Many Teachers. Phi Delta Kappan, 92(5), 47 – 51. https://doi.org/10.1177/003172171109200511
8. Russo, G., Fronteira, I., Jesus, T. S., & Buchan, J. (2018). Understanding nurses' dual practice: A scoping review of what we know and what we still need to ask on nurses holding multiple jobs. Human Resources for Health, 16(1), 14. https://doi.org/10.1186/s12960-018-0276-x
9. Blake, G. (1977). Moonlighting Becomes You: Americans Talk About Their Second Jobs. Performing Arts Review, 7(1), 91–142. https://doi.org/10.1080/00315249.1977.9943780
10. Conen, W., & Schulze Buschoff, K. (2021). Introduction to the special issue: Multiple job holding in Europe. Transfer: European Review of Labour and Research, 27(2), 141–147. https://doi.org/10.1177/10242589211022550
11. Piasna, A., Pedaci, M., & Czarzasty, J. (2021). Multiple jobholding in Europe: Features and effects of primary job quality. Transfer: European Review of Labour and Research, 27(2), 181–199. https://doi.org/10.1177/1024258920958836
12. Hausken, K., & Ncube, M. (2018). Service Delivery versus Moonlighting: Using Data from Kenya, Uganda, Tanzania and Senegal. African Development Review, 30(2), 219–232. https://doi.org/10.1111/1467-8268.12327
13. Gruen, R., Anwar, R., Begum, T., Killingsworth, J. R., & Normand, C. (2002). Dual job holding practitioners in Bangladesh: An exploration. Social Science & Medicine, 54(2), 267–279. https://doi.org/10.1016/S0277-9536(01)00026- 0

14. Hyder, A., & Ahmed, A. M. (2009). The Dynamics of Moonlighting in Pakistan. The Pakistan Development Review, 48(4II), 497–507. https://doi.org/10.30541/v48i4IIpp.497-507

15. Averett, S. L. (2001). Moonlighting: Multiple motives and gender differences. Applied Economics, 33(11), 1391–1410. https://doi.org/10.1080/00036840010007957

16. David Allen, W. (1998). The moonlighting decision of unmarried men and women: Family and labor market influences. Atlantic Economic Journal, 26(2), 190–205. https://doi.org/10.1007/BF02299361

17. Mellor, S., & Decker, R. (2021). Financial Support for Family Members and Importance of Performance Quality Interact as a Source of Motivation for Multiple Jobholding. Employee Responsibilities and Rights Journal, 33(2), 61–76. https://doi.org/10.1007/s10672-020-09354-y

18. Kimmel, J., & Smith Conway, K. (2001). Who Moonlights and Why? Evidence from the SIPP. Industrial Relations: A Journal of Economy and Society, 40(1), 89–120. https://doi.org/10.1111/0019-8676.00198

19. Lalé, E. (2015). Multiple job holding over the past two decades. Monthly Labor Review. https://doi.org/10.21916/mlr.2015.7

20. Hurka, S., Daniel, W. T., & Obholzer, L. (2018). Determinants of moonlighting in the European Parliament. The Journal of Legislative Studies, 24(1), 127–147. https://doi.org/10.1080/13572334.2018.1444630

21. Marten, M. G., & Sullivan, N. (2020). Hospital side hustles: Funding conundrums and perverse incentives in Tanzania's publicly-funded health sector. Social Science & Medicine, 244, 112662. https://doi.org/10.1016/j.socscimed.2019.112662

22. Brindha S., & Dulloo, R. (2023). Predictive HR Analytics: Pioneering Innovation in the Workplace [Special issue]. European Chemical Bulletin, 12(8), 820-835.

23. Quart, A. (2016, September 7). Teachers Are Working for Uber Just to Keep a Foothold in the Middle Class. The Nation. https://www.thenation.com/article/archive/teachers-are-working-for-uber-just-to-keep-a-foothold-in-the-middle-class/

24. Doucette, M. H., & Bradford, W. D. (2019). Dual Job Holding and the Gig Economy: Allocation of Effort across Primary and Gig Jobs. Southern Economic Journal, 85(4), 1217–1242. https://doi.org/10.1002/soej.12338

25. Asravor, R. K. (2021). Moonlighting to survive in a pandemic: Multiple motives and gender differences in Ghana. International Journal of Development Issues, 20(2), 243–257. https://doi.org/10.1108/IJDI-08-2020-0180

26. Ravenelle, A. J., Kowalski, K. C., & Janko, E. (2021). The Side Hustle Safety Net: Precarious Workers and Gig Work during COVID-19. Sociological Perspectives, 64(5), 898–919. https://doi.org/10.1177/07311214211005489

27. Ramachandran R.V., & Dulloo, R. (2023). Beyond Face-to-Face: Delving into Candidates' Perspectives on Virtual Interviews. [Special issue]. European Chemical Bulletin, 12(8), 2483-2497.

28. Dhal, M. (2022, September 23). Is moonlighting legal or just a new trend of fading employee commitment? Forbesindia.Com. https://www.forbesindia.com/article/iim-kozhikode/is-moonlighting-legal-or-just-a-new-trend-of-fading-employee-commitment/80031/1

29. Sunder, K. (2022, October 18). Moonlighting: The controversy among India's tech workers. https://www.bbc.com/worklife/article/20221014-moonlighting-the-controversy-among-indias-tech-workers

30. Paxson, C. H., & Sicherman, N. (1996). The Dynamics of Dual Job Holding and Job Mobility. Journal of Labor Economics, 14(3), 357–393. https://doi.org/10.1086/209815

31. Shishko, R., & Rostker, B. (1976). The Economics of Multiple Job Holding. The American Economic Review, 66(3), 298–308. JSTOR.

32. Dempster-McClain, D., & Moen, P. (1989). Moonlighting Husbands: A Life-Cycle Perspective. Work and Occupations, 16(1), 43–64. https://doi.org/10.1177/0730888489016001003

33. Krishnan, P. (1990). The Economics of Moonlighting: A Double Self-Selection Model. The Review of Economics and Statistics, 72(2), 361. https://doi.org/10.2307/2109729

34. Fuller, V., & Mason, B. (1977). Farm Labor. The ANNALS of the American Academy of Political and Social Science, 429(1), 63–80. https://doi.org/10.1177/000271627742900107

35. Ballou, D. (1995). Causes and Consequences of Teacher Moonlighting. Education Economics, 3(1), 3–18. https://doi.org/10.1080/09645299500000032

36. Petersdorf, R. G., & Bentley, J. (1989). Residents' hours and supervision: Academic Medicine, 64(4), 175–181. https://doi.org/10.1097/00001888-198904000-00001

37. Van der Gaag, J., Stelcner, M., & Vijverberg, W. (1989). Wage Differentials and Moonlighting by Civil Servants: Evidence from Côte d'Ivoire and Peru. The World Bank Economic Review, 3(1), 67–95. https://doi.org/10.1093/wber/3.1.67

38. Hirsch, B. T., Husain, M. M., & Winters, J. V. (2016). Multiple job holding, local labor markets, and the business cycle. IZA Journal of Labor Economics, 5(1), 4. https://doi.org/10.1186/s40172-016-0044-x

39. Panos, G. A., Pouliakas, K., & Zangelidis, A. (2014). Multiple Job Holding, Skill Diversification, and Mobility. Industrial Relations: A Journal of Economy and Society, 53(2), 223–272. https://doi.org/10.1111/irel.12055

40. Peng, Z., Wang, Q., & Wang, S. (2021). Work Engagement of Employees in Moonlighting: A Moderated Mediation Model From a Boundaryless Career Perspective. Frontiers in Psychology, 12, 693547. https://doi.org/10.3389/fpsyg.2021.693547

41. Bruns, A., & Pilkauskas, N. (2019). Multiple Job Holding and Mental Health among Low-Income Mothers. Women's Health Issues, 29(3), 205–212. https://doi.org/10.1016/j.whi.2019.01.006

42. Bakos, J. D., & Hake, R. J. (1987). Professional Liability Exposure of Casual Consultants. Journal of Professional Issues in Engineering, 113(4), 321–339. https://doi.org/10.1061/(ASCE)1052-3928(1987)113:4(321)

43. Lynch, T. W. (1996). Is Moonlighting or Donating Professional Engineering Services Ethical? Journal of Professional Issues in Engineering Education and Practice, 122(1), 37–38. https://doi.org/10.1061/(ASCE)1052-3928(1996)122:1(37)

44. Kawakami, A. (2019). Multiple job holding as a strategy for skills development. Japan and the World Economy, 49, 73–83. https://doi.org/10.1016/j.japwor.2018.09.004

45. Oranburg, S., & Palagashvili, L. (2021). Transaction Cost Economics, Labor Law, and the Gig Economy. The Journal of Legal Studies, 50(S2), S219–S237. https://doi.org/10.1086/704893

46. Yeo, R. K., & Li, J. (2022). Breaking the silence of psychological impact while working from home during COVID: Implications for workplace learning. Human Resource Development International, 25(2), 114–144. https://doi.org/10.1080/13678868.2022.2047149

47. Chen, C.-C., Zou, S. (Sharon), & Chen, M.-H. (2022). The fear of being infected and fired: Examining the dual job stressors of hospitality employees during COVID-19. International Journal of Hospitality Management, 102, 103131. https://doi.org/10.1016/j.ijhm.2021.103131

48. Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics, 11(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

49. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

50. Pritchard, A. (1969). Statistical bibliography or bibliometrics. Journal of Documentation, 25, 348.

51. Guler, A. T., Waaijer, C. J. F., & Palmblad, M. (2016). Scientific workflows for bibliometrics. Scientometrics, 107(2), 385–398. https://doi.org/10.1007/s11192-016-1885-6

52. Semenyuk, P., Barinova, K., & Muronetz, V. (2019). Glycation of α-synuclein amplifies the binding with glyceraldehyde-3-phosphate dehydrogenase. International Journal of Biological Macromolecules, 127, 278–285. https://doi.org/10.1016/j.ijbiomac.2019.01.064

53. Williams, J. P. (1988). The Mystique of Moonlighting: "When You Care Enough to Watch the Very Best." Journal of Popular Film and Television, 16(3), 90–100. https://doi.org/10.1080/01956051.1988.9943391

54. Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. Proceedings of the National Academy of Sciences, 102(46), 16569–16572. https://doi.org/10.1073/pnas.0507655102

55. Egghe, L. (2006). Theory and practise of the g-index. Scientometrics, 69(1), 131–152. https://doi.org/10.1007/s11192- 006-0144-7

56. Von Bohlen und Halbach, O. (2011). How to judge a book by its cover? How useful are bibliometric indices for the evaluation of "scientific quality" or "scientific productivity"? Annals of Anatomy - Anatomischer Anzeiger, 193(3), 191– 196. https://doi.org/10.1016/j.aanat.2011.03.011

57. Ashmore, J., & Gilson, L. (2015). Conceptualizing the impacts of dual practice on the retention of public sector specialists—Evidence from South Africa. Human Resources for Health, 13(1), 3. https://doi.org/10.1186/1478-4491-13-3

58. Yingling, K. W., Hattemer, C., Rouan, G. W., & Luke, R. G. (1991). Internal medicine residents' monitoring of their colleagues' moonlighting activities at the University of Cincinnati: Academic Medicine, 66(11), 705–706. https://doi.org/10.1097/00001888-199111000-00017

59. Smith Conway, K., & Kimmel, J. (1998). Male labor supply estimates and the decision to moonlight. Labour Economics, 5(2), 135–166. https://doi.org/10.1016/S0927-5371(97)00023-7

60. Bornmann, L., & Marx, W. (2015). Methods for the generation of normalized citation impact scores in bibliometrics: Which method best reflects the judgements of experts? Journal of Informetrics, 9(2), 408–418. https://doi.org/10.1016/j.joi.2015.01.006

61. Batagelj, V., & Cerinšek, M. (2013). On bibliographic networks. Scientometrics, 96(3), 845–864. https://doi.org/10.1007/s11192-012-0940-1

62. Savić, M., Ivanović, M., & Jain, L. C. (2019). Co-authorship Networks: An Introduction. In M. Savić, M. Ivanović, & L. C. Jain, Complex Networks in Software, Knowledge, and Social Systems (Vol. 148, pp. 179–192). Springer International Publishing. https://doi.org/10.1007/978-3-319-91196-0_5

63. Livanos, I., & Zangelidis, A. (2012). Multiple Job-holding among Male Workers in Greece. Regional Studies, 46(1), 119–135. https://doi.org/10.1080/00343404.2010.486780

64. Livanos, I., & Zangelidis, A. (2013). Unemployment, Labor Market Flexibility, and Absenteeism: A Pan-European Study. Industrial Relations: A Journal of Economy and Society, 52(2), 492–515. https://doi.org/10.1111/irel.12021

65. Baldwin, D. C., Daugherty, S. R., Ryan, P. M., & Yaghmour, N. A. (2012). What Do Residents Do When Not Working or Sleeping? A Multispecialty Survey of 36 Residency Programs: Academic Medicine, 87(4), 395–402. https://doi.org/10.1097/ACM.0b013e318249638b

66. Hjørland, B. (2013). Facet analysis: The logical approach to knowledge organization. Information Processing & Management, 49(2), 545–557. https://doi.org/10.1016/j.ipm.2012.10.001

67. Forina, M., Armanino, C., & Raggio, V. (2002). Clustering with dendrograms on interpretation variables. Analytica Chimica Acta, 454(1), 13–19. https://doi.org/10.1016/S0003-2670(01)01517-3