

ANALYSING RESEARCH PATTERNS IN EMPLOYEE MOTIVATION AND PERFORMANCE: A BIBLIOMETRIC PERSPECTIVE

Rosliza Md Zani^{1*}, Azyyati Anuar², Syukriah Ali³, Yong Azrina Ali Akbar⁴, Fatihah Norazami
Abdullah⁵

^{1,2,3,4,5} Faculty of Business and Management, Universiti Teknologi MARA Cawangan Kedah, 08400 Merbok,
Kedah, Malaysia

*Corresponding author

Email: ¹rosliza568@uitm.edu.my, ²azyyati@uitm.edu.my, ³syukriah@uitm.edu.my, ⁴yong198@uitm.edu.my,
⁵fatih876@uitm.edu.my

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ABSTRACT

Employee motivation and performance are critical elements for organisational success, significantly impacting productivity and job satisfaction. This study conducts a thorough bibliometric analysis of research on employee motivation and performance, offering insights into the field's development, key research areas, and influential contributors. The research objectives of this study include investigating the authorship by using research on employee motivation and performance using bibliometric analysis, addressing the analysis of the keywords' clusters consisting of three co-occurrence networks, and synthesising the research trends on employee motivation and performance with a focus on the geographical distribution of publications and authorship. Using Scopus data spanning from 2004 to 2023, this research maps the landscape of employee motivation and performance literature. The analysis reveals a growing interest in this topic over the years, with articles being the predominant publication type, indicating a commitment to in-depth exploration. Notably, authors like Hitka, M. and Lorincová, S. have made substantial contributions and the prevalence of the "Business, Management, and Accounting" subject area highlights the interdisciplinary nature of this field. The study underscores the continuous evolution of employee motivation and performance research, driven by scholars worldwide.

Keywords: employee motivation, performance, bibliometric analysis, organisational behaviour, research trends

1.0 INTRODUCTION

Employee motivation and performance are key areas of scholarly interest due to their significant impact on productivity, job satisfaction, and overall workplace dynamics, crucial for organisational success. Motivated employees tend to show higher dedication, engagement, and job satisfaction, leading to improved performance outcomes and organisational growth.

Employee motivation plays a crucial role in organisational success and productivity. Uka and Prendi (2021) emphasise that motivation serves as an indicator of performance and productivity from employees' perspective. Strategic focus on motivation can lead to increased productivity, improved job satisfaction, and enhanced overall organisational performance. Lee and Raschke (2016) support this notion, highlighting that motivated employees contribute to better organisational outcomes. Furthermore, Okine et al. (2021) suggest that understanding various types of motivation and the factors influencing employee motivation and performance can aid organisations in developing effective strategies to enhance both.

The gap in this study rests in the limited use of bibliometric analysis to explore the relationship between employee motivation and performance. While the study provides a comprehensive overview of existing research, it does not delve deeply into the quantitative aspects of this relationship using bibliometric methods. This gap presents an opportunity for future research to conduct more in-depth analyses using bibliometric techniques to further enhance our understanding of employee motivation and performance dynamics.

Therefore, this study aims to conduct a bibliometric analysis focusing on key articles related to employee motivation and performance using the Scopus database. By analysing Scopus, which includes various academic sources, the study seeks to understand research trends and issues in this area more comprehensively. Previous studies have utilised the Scopus database to conduct bibliometric analyses on various topics, including motivation in physical education (Chen et al., 2022), and intrinsic motivation research trends (Shaikh et al., 2021). These studies demonstrate the usefulness of the Scopus database in conducting bibliometric analyses and gaining insights into research trends and issues. Moreover, the importance of this study resides in its focus on employee motivation and performance, critical elements for organisational success. Through bibliometric analysis, it offers insights into research evolution, key areas, and contributors, enhancing our understanding of this relationship. This knowledge is vital for optimising the workforce, improving productivity, and enhancing job satisfaction. The study offers interdisciplinary insights and global perspectives, shaping future research and guiding organisations in developing effective strategies.

Hence, the contribution of this study lies in its comprehensive bibliometric analysis of research on employee motivation and performance. By examining a wide range of publications, the study provides valuable insights into the development, trends, and key contributors in this field. It sheds light on the interdisciplinary nature of research on employee motivation and performance, highlighting its relevance across various disciplines. Additionally, the study offers a detailed examination of publication trends, notable authors, influential journals, and emerging themes, providing a roadmap for future research directions. Overall, this study significantly contributes to the existing literature by offering a comprehensive overview and guiding future research in this important area.

Consequently, the objectives of this paper are as follows: (1) to investigate the trends and productivity of research on employee motivation and performance using bibliometric analysis. This analysis sort articles by document and source type, year of publication,

subject area, and most active source titles; (2) to address the analysis of the keywords' clusters consisting of three co-occurrence networks; and (3) to synthesise the research trends on employee motivation and performance with a focus on the geographical distribution of publications, and authorship.

Finally, the paper is structured as follows. The first section describes the evolution of the literature review in the field of employee motivation and performance, while the second section describes the methodology employed for this study and the search strategy flowchart. The third section discusses the relevant bibliometric indicators' outcomes and analyses. This section contains bibliometric analysis tables and figures. The final section contains conclusions and recommendations.

2.0 LITERATURE REVIEW

The literature reviewed presents a thorough analysis of the correlation between employee motivation and performance. Rizwan et al. (2014) found a significant positive relationship in Pakistan, emphasising intrinsic incentives. Asriani et al. (2020) highlighted the importance of enhancing employee performance, particularly in small and medium-sized Pakistani firms. Kuswati (2020) suggested that decreased motivation might explain declining performance, supported by empirical data. Pangastuti et al. (2020) further supported this, emphasising the substantial impact of work motivation on performance. These studies collectively underscore the critical role of motivation in driving performance and organisational success, providing valuable insights for practitioners and researchers.

Furthermore, the exploration conducted by Girdwichai and Sriviboon (2020) delved into the mediating role of the work environment and training in the relationship between employee motivation and performance, uncovering significant correlations. Meanwhile, Ekundayo and Ayo (2018) made a compelling case for a direct and robust correlation between motivation and performance, contributing to the discourse with their emphasis on this relationship. Carvalho et al. (2020) presented additional support by demonstrating a positive correlation between motivation, work satisfaction, and employee performance.

Alhempri and Supeno (2021), and Sinambela and Ernawati (2021) further solidified the notion that motivation holds a significant and favourable impact on employee performance. It's noteworthy that the study conducted by Ekundayo and Ayo (2018) stands out for its clear and strong association between employee motivation and performance, emphasising the pivotal role of motivation in achieving exceptional performance outcomes. This underscores the critical nexus between these two factors. In parallel, the ongoing research efforts led by Sinambela and Ernawati (2021) consistently bolster the overarching concept, adding depth and significance to the understanding of motivation's multifaceted impact on various dimensions of employee performance within the intricate landscape of organisations.

In contrast, Marques (2021) employed bibliometric analysis on 61 publications about Public Service Motivation and Leadership, revealing a recent surge in research activity. However, a notable focus on the United States underscores the need for broader geographical diversity in future studies, raising questions about findings' generalisability across cultural contexts. Further research is essential to deepen the understanding of Public Service Motivation and Leadership.

In summation, this body of literature collectively underscores the utmost importance of motivation in enhancing diverse facets of employee performance. By offering diverse perspectives from different contexts, research methodologies, and organisational settings, it provides a robust foundation for future investigations in this critical area of study, emphasising the enduring relevance and multifaceted nature of the motivation-performance

relationship. Indeed, it is evident that there is a scarcity of studies employing bibliometric analysis to investigate the relationship between employee motivation and performance. Consequently, it is necessary to examine this study thoroughly through the lens of bibliometric analysis.

3.0 METHODS

3.1 Bibliometric analysis

Bibliometric analysis, a method for assessing scientific research productivity, relies on statistical analysis of databases to extract indicators such as authors, sources, and geographical distributions (Zyoud et al., 2017; Dabirian et al., 2016). This approach is increasingly used to uncover research trends in specific domains (Ahmi & Mohamad, 2019). It provides insights by displaying data on publication compilation from databases, including publication type, publication location, h-index, authors, frequency of keywords, and citation count (Ahmi & Mohd Nasir, 2019).

The bibliometric analysis for the current study was performed utilising VOSviewer, a freely accessible software application designed to generate and illustrate network relationships (vosviewer.com). The mentioned software is capable of constructing a mapping from citation data extracted from reputable databases including Web of Science, Dimensions, PubMed, and Scopus (Williams, 2020). In addition, VOSviewer generates a visual representation of network co-occurrence by utilising the terms that were extracted from the literature review (vosviewer.com). A minimum number of keywords that must be presented collectively in a paper is set by the software (Ciano et al., 2019). Another tool has been performed by utilizing Harzing's Publish or Perish. It is a well-established software application designed to analyse and retrieve academic citations. Its purpose is to assist academicians in demonstrating the maximum benefit of their research impact arguments, even in the presence of a scarcity of citations. Bibliometric research is another application of this tool (Harzing.com). This study additionally examines the influence of publications through the utilisation of Publish or Perish and VOSviewer, which assess citation counts, impact per publication, and citation per publication.

3.2 Source and data collection.

The data required for this bibliometric analysis were obtained from the Scopus database to conduct the present investigation. One of the most crucial features of Scopus is its ability to provide bibliometric indicators in a straightforward and concise manner (Sweileh et al. 2018). With an estimated 1,741 titles, the Scopus database is one of the most reputable academic databases currently accessible; thus, it serves as the principal source of information for this study. The authors conducted the document search in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews of Environmental Science, Pollution, and Meta-Analyses) guidelines, which are illustrated in Fig. 1. A series of searches were conducted that used different combinations of the following keyword string: (TITLE-ABS-KEY ("employee motivation" AND "performance")).

As of August 20, 2023, a total of 727 documents were produced by this Scopus search (refer to Figure 1). Subsequently, the filtration process was executed by excluding publications prior to 2004 from the list of 727 documents. In the end, 661 documents were produced and thoroughly examined through the elimination of 66 documents. Consequently, for additional analysis, applications including VOSviewer, Microsoft Excel, and Harzing Publish or Perish were utilised.

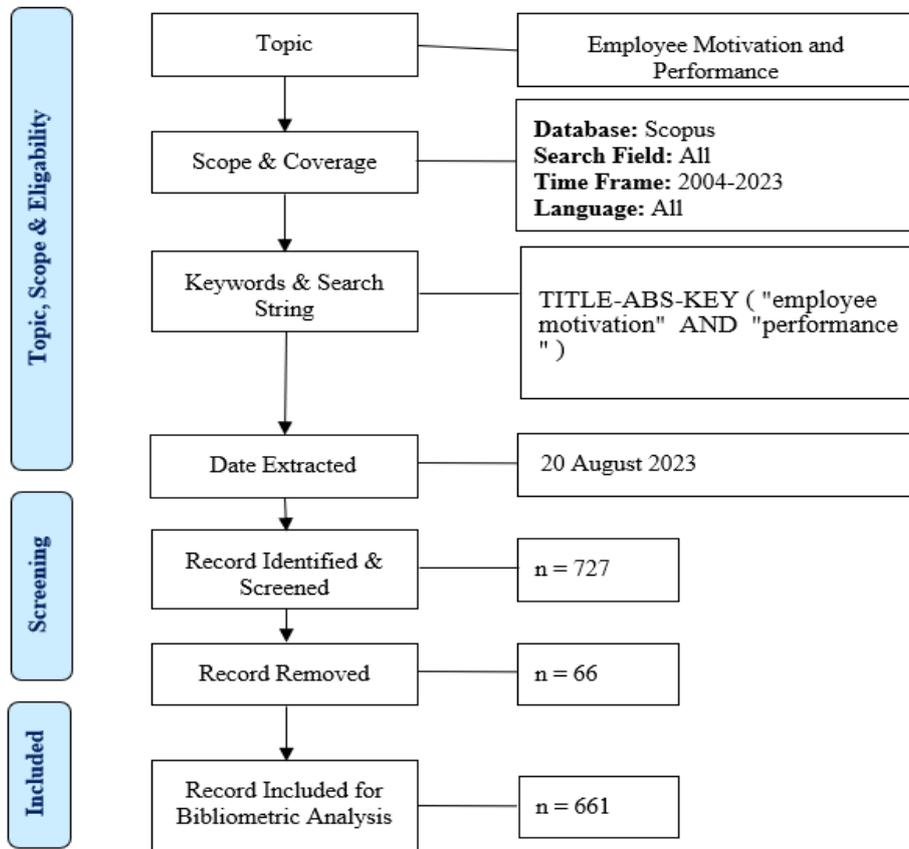


Fig. 1: PRISMA Flow Diagram

4.0 RESULTS & DISCUSSION

4.1 Document and Source Types

Table 1 reveals that 76.40% of all publications fall under the "Article" category, highlighting the significance of in-depth research articles in this field (Luthra & Ranganathan, 2023). In addition, book chapters account for an impressive 5.75% of all publications, demonstrating the importance of in-depth scholarly contributions in book formats. Further analysis of the publication categories reveals that the "Reviews" category, which includes both "Review" and "Conference Review" publications, accounts for 3.48% of the total. This demonstrates the importance of thorough literature assessments and evaluations in the employee motivation and performance domain (Anyim & Onyegbulu, 2020). While "Book" and "Short Survey" publications represent a relatively small proportion of total publications (1.22%), they still contribute significantly to the scholarly discourse of this field (Shaikh et al., 2021). Even though their combined proportion is only 0.60%, "Editorial" and "Note" publications continue to provide valuable insights and brief remarks within this research domain.

Table 1: Document Type

Document Type	Total Publications (TP)	Percentage (%)
Article	505	76.40%
Conference Paper	83	12.56%
Book Chapter	38	5.75%
Review	20	3.03%
Book	4	0.61%
Short Survey	4	0.61%
Conference Review	3	0.45%
Editorial	2	0.30%
Note	2	0.30%
Total	661	100.00

As shown in Table 2, journals are the most prevalent source type, accounting for 81.24% of all publications (Veerabbayi et al., 2023). This exemplifies the scholarly dedication to disseminating research results through peer-reviewed articles and demonstrates the rigour and extent of research in this field. Journals are frequently regarded as the most reliable source of information in academic research because they endure a rigorous peer-review process prior to publication. Conference proceedings account for 9.83% of the total corpus, a sizable proportion. This demonstrates the utility of academic conferences as forums for the dissemination of research findings and the promotion of scholarly discourse on employee motivation and performance. Researchers can present their findings at conferences, receive feedback, and engage in discussions with other academicians in their field (Veerabbayi et al., 2023).

In addition, books, despite constituting a smaller proportion of publications at 4.69%, still make a significant contribution to the corpus of literature in this field (Shaikh et al., 2021). Similarly, book series contribute 3.78%, demonstrating the importance of exhaustive volumes and monographs for the advancement of knowledge. Frequently, books provide in-depth analyses of aspects of the field, enriching the existing corpus of knowledge. Lastly, trade publications, despite constituting only 0.45% of all publications, serve as additional channels for knowledge dissemination and may offer practitioners and professionals in the field valuable insights. Trade publications are frequently written for a specific audience, such as industry professionals, and may include insights and recommendations for enhancing employee motivation and performance at work.

Table 2: Source Type

Source Type	Total Publications (TP)	Percentage (%)
Journal	537	81.24%
Conference Proceeding	65	9.83%
Book	31	4.69%
Book Series	25	3.78%
Trade Journal	3	0.45%
Total	661	100.00

4.2 Year of Publications/Evolution of Published Studies

Table 3 provides a comprehensive overview of the distribution of publications across various years, placing light on the evolution of scholarly contributions to the field of employee motivation and performance. The data demonstrates a sustained level of scholarly activity in this field of study, with significant research output in recent years. The most recent year, 2023, encountered a significant increase in the number of publications, with 43 publications accounting for 6.51% of the total. Previous years also exhibited substantial scholarly activity, with 74 (11.20%) and 71 (10.74%) publications in 2022 and 2021, respectively. These years mark a period of significant research output, which reflects the continued interest and relevance of employee motivation and performance in contemporary organisational contexts.

Table 3: Year of Publications

Year	Total Publications	Percentage (%)	Year	Total Publications	Percentage (%)
2023	43	6.51%	2013	28	4.24%
2022	74	11.20%	2012	25	3.78%
2021	71	10.74%	2011	18	2.72%
2020	58	8.77%	2010	18	2.72%
2019	58	8.77%	2009	14	2.12%
2018	46	6.96%	2008	17	2.57%
2017	39	5.90%	2007	14	2.12%
2016	39	5.90%	2006	16	2.42%
2015	40	6.05%	2005	9	1.36%
2014	30	4.54%	2004	4	0.61%
Total		661			100.00%

Further analysis reveals that each of the years 2020 and 2019 accounted for 8.77% of the total, or 58 publications. The years 2018 and 2017 contributed a combined 12.86% (85 publications) to this research domain, demonstrating a consistent focus during this time frame (Veerabbayi et al., 2023). Interestingly, the years 2014 to 2018 exhibit a comparatively stable number of publications, indicating a sustained level of scholarly activity during this time. Prior years, including 2013, 2012, and 2011, contributed 4.24% (28 publications), 3.78% (25 publications), and 2.73% (18 publications), respectively, highlighting the enduring interest in this field. Finally, the years 2010, 2009, and 2008 account for 6.41% (49 publications) of the total, demonstrating the ongoing investigation of employee motivation and performance over the past decade.

4.3 Languages of Documents

Table 4 demonstrates that English is the predominant language, accounting for 96.57% of all publications in the field of employee motivation and performance. This predominance of English as the primary language of scholarly communication reflects its prevalence in academic discourse worldwide (Liu, 2017). Spanish, Chinese, and German each make notable contributions, constituting 0.75%, 0.45%, and 0.45% of the total, respectively.

Nevertheless, a significant proportion of scholarly articles are written in the English language, hence presenting obstacles for individuals who are not native English speakers or researchers originating from non-English speaking nations (Hurltgen, 2019). The global phenomenon of prioritising publication in esteemed English-language journals has raised concerns over the potential exclusion of non-English-speaking academics within the realm of scientific literature (Bahji et al., 2023) While certain scholars proficient in many languages perceive the use of English as a means to engage a wider academic audience outside their own local context, language, or research group, insufficient consideration is being given to the potential drawbacks associated with this emphasis on English.

Table 4: Languages Used for Publications

Language	Total Publications	Percentage (%)
English	647	96.57%
Spanish	5	0.75%
Chinese	3	0.45%
German	3	0.45%
French	2	0.30%
Polish	2	0.30%
Bosnian	1	0.15%
Czech	1	0.15%
Dutch	1	0.15%

Greek	1	0.15%
Persian	1	0.15%
Russian	1	0.15%
Slovak	1	0.15%
Turkish	1	0.15%
Total		100.00

4.4 Subject Area

Table 5 reveals a multifaceted investigation of subject areas in this discipline, including Business, Management, and Accounting, Computer Science and Decision Sciences, Engineering, Economics, Econometrics, and Finance, Environmental Science, and Energy. In addition, the study incorporates interdisciplinary research from fields including Arts and Humanities, Health Professions, and Immunology and Microbiology. A notable observation is the significant presence of research articles within the Business, Management, and Accounting domain, which accounts for 57.19% (378 publications) of the total. This concentration reflects the enduring relevance of employee motivation and performance in the organisational context, highlighting its central role in the success and efficacy of businesses and management practices (Uka & Prendi, 2021).

Table 5: Subject Area

Subject Area	Total Publications	Percentage (%)
Agricultural and Biological Sciences	11	1.66%
Arts and Humanities	28	4.24%
Biochemistry, Genetics and Molecular Biology	4	0.61%
Business, Management and Accounting	378	57.19%
Chemical Engineering	4	0.61%
Computer Science	79	11.95%
Decision Sciences	70	10.59%
Earth and Planetary Sciences	4	0.61%
Economics, Econometrics and Finance	104	15.73%
Energy	23	3.48%
Engineering	91	13.77%
Environmental Science	41	6.20%
Health Professions	3	0.45%
Immunology and Microbiology	2	0.30%
Materials Science	4	0.61%

In addition, the study reveals that Computer Science and Decision Sciences contribute a total of 11.95%, highlighting the intersection of technology and human performance. With 13.77%, the Engineering discipline emphasises the importance of this research in optimising industrial and engineering processes. Economics, Econometrics, and Finance, with 15.73%, demonstrates the extensive economic implications of employee motivation and performance, emphasising the far-reaching effects of these factors on financial outcomes. Environmental Science and Energy, each contributing 6.20% and 3.48%, respectively, highlight the ecological and energy-related aspects of this study, recognising the environmental sustainability aspect of employee motivation and performance (Uka & Prendi, 2021). The inclusion of Arts and Humanities, Health Professions, and Immunology and Microbiology in this study underscores the interdisciplinary nature of this research. This inter-disciplinary investigation enhances the comprehension of how motivation and performance transcend traditional disciplinary boundaries and have a wide-ranging impact on human life and society.

4.5 Most Active Source Titles

Table 6 provides a comprehensive listing of publications and their respective sources. A notable source is "Sustainability Switzerland," which contains 14 articles, or about 2.12% of the total number of publications. This journal contributes significantly to the advancement of research at the intersection of sustainability, employee motivation, and employee performance (Nimsai et al., 2020). Another noteworthy source is "Evidence-Based HRM," which includes 10 publications (approximately 1.51%) and functions as a key platform for research based on empirical evidence, significantly contributing to the evidence-based understanding of these important topics (Lee & Raschke, 2016). Eight publications (approximately 1.21%) are attributed to both the "International Journal of Human Resource Management" and the "Proceedings of the International Conference on Industrial Engineering and Operations Management." (Nimsai et al., 2020) These sources play a crucial role in the dissemination of research findings within the broader context of human resource management and industrial engineering.

Other sources, including "Frontiers in Psychology," "Emerald Emerging Markets Case Studies," and "Employee Relations," each contain six articles (approximately 0.91% and 0.76%, respectively), illustrating the multidisciplinary nature of the research, which incorporates psychological, business, and management perspectives. Other sources, such as "Asian Social Science," "European Journal of Training and Development," "Journal of Applied Psychology," and "Mediterranean Journal of Social Sciences," contribute 0.61% (4 publications) to the total, highlighting the interdisciplinary nature of research in the field, which draws from the social sciences, psychology, and business studies (Nimsai et al., 2020).

Table 6: Most Active Source Title

Source Title	Total Publications	Percentage (%)
Sustainability Switzerland	14	2.12%
Evidence Based Hrm	10	1.51%
International Journal of Human Resource Management	8	1.21%
Proceedings of the International Conference on Industrial Engineering and Operations Management	8	1.21%
Frontiers in Psychology	6	0.91%
Emerald Emerging Markets Case Studies	5	0.76%
Employee Relations	5	0.76%
Asian Social Science	4	0.61%
European Journal of Training and Development	4	0.61%
International Journal of Mechanical Engineering and Technology	4	0.61%
Journal of Applied Psychology	4	0.61%
Mediterranean Journal of Social Sciences	4	0.61%
Personnel Review	4	0.61%
Polish Journal of Management Studies	4	0.61%
Problems and Perspectives in Management	4	0.61%

4.6 Keywords Analysis

Table 7 presents a complete analysis of the author keywords. The term "Motivation" has the highest frequency, being present in 186 articles, accounting for 28.14% of the total. The topic of "Employee Motivation" has been extensively explored in 168 papers, accounting for around 25.42% of the total. In a comparable manner, the concept of "Employee Performance" has been given prominence in a total of 55 publications, accounting for around 8.32% of the overall literature. The term "performance" holds substantial importance, as it is featured in 54 articles, accounting for 8.17% of the total. The concept of "job satisfaction"

has been referenced in a total of 49 publications, accounting for approximately 7.41% of the overall literature.

The term "Motivation" exhibits the greatest frequency, suggesting the significant importance of motivation as a core element in comprehending employee behaviour and performance. Additionally, the phrase "Employee Motivation" emphasises the particularity of the research focus on motivation in the context of employees. Likewise, the significance of "Employee Performance" is underscored, elucidating the intricate relationship between motivational elements and tangible job outcomes (Okine et al., 2021). The term "performance" holds considerable importance, as it indicates a prevailing focus on evaluating and enhancing different aspects of performance within organisational settings (Uka & Prendi, 2021). The concept of "job satisfaction" is referenced, highlighting the correlation between motivation and the happiness individuals experience in their work. This connection has a direct impact on employee engagement and productivity (Lee & Raschke, 2016).

Table 7: Top Keyword

Author Keywords	Total Publications	Percentage (%)
Motivation	186	28.14%
Employee Motivation	168	25.42%
Employee Performance	55	8.32%
Performance	54	8.17%
Job Satisfaction	49	7.41%
Human	47	7.11%
Human Resource Management	43	6.51%
Employee	39	5.90%
Leadership	38	5.75%
Job Performance	34	5.14%
Humans	31	4.69%
Article	30	4.54%
Organisational Performance	26	3.93%
Performance Management	21	3.18%
Surveys	21	3.18%
Employment	20	3.03%
Organisation	20	3.03%
Intrinsic Motivation	19	2.87%
Male	19	2.87%
Management	19	2.87%

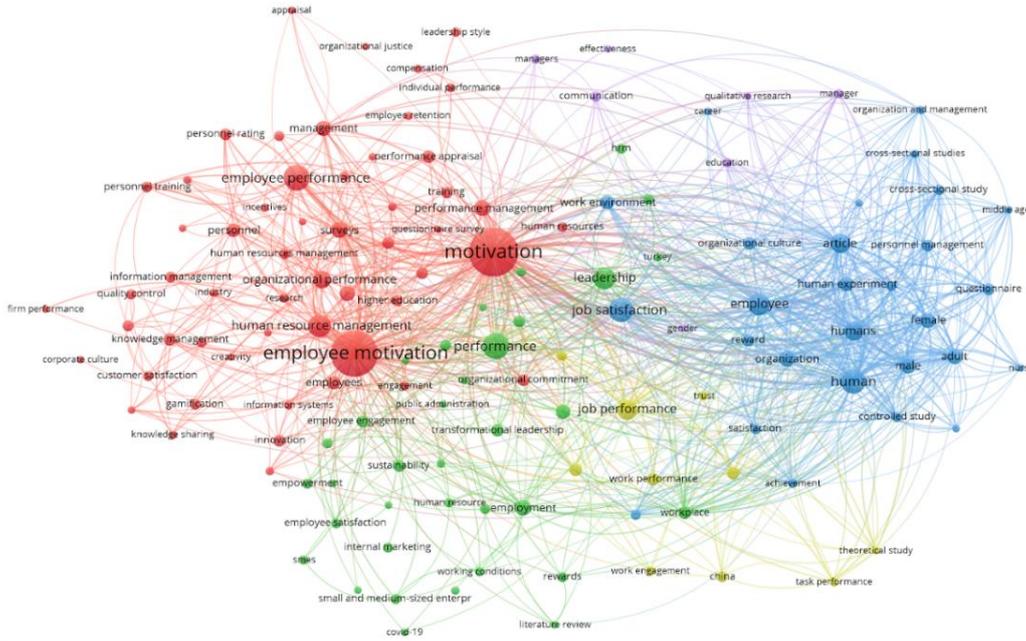


Fig. 2: Network visualisation map of the author keywords

Type of analysis = Co-occurrence
 Unit of analysis = All keywords
 Counting method = Full counting
 Minimum number of occurrences of a keyword = 3
 Number of keywords to be selected = 285

The visualisation in Figure 2 resulted in the generation of four clusters of keywords. One of the primary clusters includes motivation, employee motivation, organisational performance, and employee performance, among others. The second cluster encompasses performance, leadership, transformational leadership, and employee engagement. The third cluster encompasses the domains of job satisfaction, human, employee, and human experiment. The final cluster includes job performance, work performance, task performance, and trust, among others.

Fig. 3 depicts the author keyword word cloud. The size of each term indicates the frequency with which the keywords appear. Motives is the primary keyword with numerous occurrences. In addition, more keywords such as Performance, Satisfaction, Employee, Work, Organisational, Human, Social, Manager, Culture, and Job can be seen in the word cloud. Despite their small size, additional keywords have been used to accommodate the topic of employee motivation for the years 2004 to 2023.

substantial contributors with 3.33% representation, demonstrating the country's active participation in the scholarly conversation surrounding these subjects (Nimsai et al., 2020).

4.8 Authorship

Table 9 provides a comprehensive overview of the scholastic contributions made by different authors in the field of employee motivation and performance research. The authors have substantially advanced academic discourse in this field. "Hitka, M." emerges as the most prolific contributor, with an extraordinary total of 12 publications, representing approximately 1.82% of the total number of publications. Hitka's substantial body of work demonstrates his commitment to advancing knowledge in this field. "Lorincová, S." follows closely behind with eight publications, representing 1.21% of the total. (Vo et al., 2022). Lorincová's body of work demonstrates a profound engagement with the complexities of employee motivation and performance.

Several other authors, including "Forest, J.," "Baláková," "Chahar, B.," "Foss, N.J.," "Hamidi, Y.," "Najafi, L.," and "Vatankhah, S.," have made significant contributions to the field by publishing at least three articles (Vo et al., 2022). Their collective efforts considerably contribute to the many facets of employee motivation and performance research. "Aigbavboa, C.," "Alsakarneh, A.," "Antoni, C.H.," "Austin, S.," and "Avasilcai, S." have authored two documents each (0.30% each). Their work exemplifies the interdisciplinary nature of research in this field, as it addresses various facets of employee motivation and performance.

Table 9: Most Productive Authors

Author's Name	No. of Documents	Percentage (%)
Hitka, M.	12	1.82%
Lorincová, S.	8	1.21%
Forest, J.	4	0.61%
Balážová, Ž.	3	0.45%
Chahar, B.	3	0.45%
Foss, N.J.	3	0.45%
Hamidi, Y.	3	0.45%
Najafi, L.	3	0.45%
Vatankhah, S.	3	0.45%
Aigbavboa, C.	2	0.30%
Alsakarneh, A.	2	0.30%
Antoni, C.H.	2	0.30%
Austin, S.	2	0.30%
Avasilcai, S.	2	0.30%
Baeten, X.	2	0.30%

The authors' contributions to employee motivation and performance research have significantly enriched the academic discourse, highlighting the multidisciplinary nature of the field. Each author brings unique insights, contributing to a deeper understanding of the factors influencing employee behaviour and performance. Their collective efforts have advanced various dimensions of research in this area, enhancing overall comprehension of this vital field of study (Bendoly et al., 2015; Lee & Raschke, 2016).

4.9 Most Influential Institutions

Table 10 provides a comprehensive overview of the significant contributions made by academic institutions to this field of study. Institutions have played a crucial role in the advancement of knowledge in this discipline. The "Technical University of Zvolen" emerges as the most prolific institution, with a notable 14 publications, constituting approximately 2.14% of the total publications. This institution's substantial body of work demonstrates its commitment to research on employee motivation and performance. Close behind are several

institutions, each with six publications, including "Erasmus Universiteit Rotterdam," "Université du Québec à Montréal," "Curtin University," and "Bucharest University of Economic Studies," which each contribute 0.91% to the total. These institutions have made substantial contributions, which demonstrates their commitment to investigating the complexities of this research field.

In addition, the "University of Illinois Urbana-Champaign," "Univerzita Komenského v Bratislava," "The Hong Kong Polytechnic University," and "Islamic Azad University" have produced five publications each, accounting for 0.76% of the total. The consistency of their research output enriches the academic discourse on employee motivation and performance. Furthermore, the "University of Johannesburg," "University of South Africa," "Universiti Teknologi MARA," "Univerzita Tomáše Bati ve Zlin," "State University of New York Albany," and "Athens University of Economics and Business" have each contributed four publications, accounting for 0.61% of the total. These institutions have contributed significantly to the diversity of perspectives and insights in this field.

Academic institutions play a significant role in advancing research on employee motivation and performance, enriching the scholarly dialogue. Their contributions underscore the interdisciplinary nature of this field, offering diverse perspectives and ideas. The research output from these institutions reflects a deep commitment to exploring the complexities of employee motivation and performance, enhancing our understanding of the factors influencing employee behaviour and performance (Vo et al., 2022).

Table 10: Most Influential Institutions with a Minimum of Four Publications

Institution	Total Publications	Percentage (%)
Technical University in Zvolen	14	2.12%
Erasmus Universiteit Rotterdam	6	0.91%
Université du Québec à Montréal	6	0.91%
Curtin University	6	0.91%
Bucharest University of Economic Studies	6	0.91%
University of Illinois Urbana-Champaign	5	0.76%
Univerzita Komenského v Bratislave	5	0.76%
The Hong Kong Polytechnic University	5	0.76%
Islamic Azad University	5	0.76%
University of Johannesburg	4	0.61%
University of South Africa	4	0.61%
Universiti Teknologi MARA	4	0.61%
Univerzita Tomáše Bati ve Zlině	4	0.61%
State University of New York Albany	4	0.61%
Athens University of Economics and Business	4	0.61%

4.10 Citation Analysis

Table 11 provides a summary of important citation metrics. The "Publication years" extend from 2004 to 2023, comprising a two-decade-long period of sustained scholarly activity. "Citation years" denote the entire number of years during which citations were tracked, spanning 20 years from 2004 to 2023, emphasising the durability of the research's impact. "Citations" refers to the total number of citations received by these publications, which total 13,378. The value of 704.11 for "Citations/year" represents the average number of citations received per year over the past two decades. The calculated value of 20.24 for "Citations/paper" represents the average number of citations per individual publication. At 6580.61, "Citations/author" is notably high. The value of 321.85 for "Papers/author" reveals the average number of papers authored by each researcher. The "h-index" is 53, which indicates that 53 publications have received at least 53 citations each. The "g-index" is 103, indicating that the top 103 papers received at least 103 citations collectively.

The high number of citations in this field indicates the academic community's recognition and the influence of research findings. Metrics such as average citations per year and per paper reflect sustained interest and engagement in this area. The high citations per author underscore the prolific research output and individual contributions. Metrics like the "h-index" and "g-index" gauge the impact and influence of highly cited and influential publications. These citation metrics are valuable for assessing research impact, identifying future research areas, and evaluating scholarly contributions (Agarwal et al., 2016; Britt & Greene, n.d.; Kişi, 2023; Gunashekar et al., 2015).

Table 11: Citations Metrics

Metrics	Data
Publication years	2004-2023
Citation years	20 (2004-2023)
Papers	661
Citations	13378
Citations/year	704.11
Citations/paper	20.24
Citations/author	6580.61
Papers/author	321.85
h-index	53
g-index	103

Table 12 presents a compilation of significant scholarly works produced by multiple academicians, along with pertinent information such as the title, publication year, number of citations, and average number of citations per year. The 2006 article by Branco and Rodrigues titled "Corporate social responsibility and resource-based perspectives" has received a total of 1047 citations, with an average of 61.59 citations per year. The article titled "Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis" published in 2014 by C.P. Cerasoli, J.M. Nicklin, and M.T. Ford has received an impressive total of 926 citations, demonstrating an outstanding annual average of 102.89 citations.

The article "A Conceptual Review of Human Resource Management Systems in Strategic Human Resource Management Research" authored by D.P. Lepak, H. Liao, Y. Chung, and E.E. Harden in 2006 has received a total of 643 citations, averaging 37.82 citations per year. The 2004 article titled "Self-esteem within the work and organisational context: A review of the organisation-based self-esteem literature" by J.L. Pierce and D.G. Gardner has received a total of 583 citations, resulting in an annual average of 30.68 citations. The citation counts of the remaining publications are also substantial, demonstrating the scholarly community's recognition of these works. The publications cover a variety of topics related to employee motivation and performance, such as leadership, goal orientation, confidence development, and the use of digital games.

The high citation rates of publications in this field indicate significant recognition and impact within the academic community (Comaford, 2018). Average citations per year and per paper suggest sustained interest and engagement in this research area. High citations per author highlight both prolific research output and substantial individual contributions to the field (Fox & Nikivincze, 2021). Metrics like the "h-index" and "g-index" assess the influence and impact of highly cited and influential publications. These citation metrics are valuable for gauging research impact, identifying future research directions, and evaluating scholarly contributions (Agarwal et al., 2016).

Table 12: Highly Cited Articles

No.	Authors	Title	Year	Cites	Cites per Year
1	M.C. Branco, L.L. Rodrigues	Corporate social responsibility and resource-based perspectives	2006	1047	61.59
2	C.P. Cerasoli, J.M. Nicklin, M.T. Ford	Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis	2014	926	102.89
3	D.P. Lepak, H. Liao, Y. Chung, E.E. Harden	A Conceptual Review of Human Resource Management Systems in Strategic Human Resource Management Research	2006	643	37.82
4	J.L. Pierce, D.G. Gardner	Self-esteem within the work and organisational context: A review of the organisation-based self-esteem literature	2004	583	30.68
5	R.F. Piccolo, R. Greenbaum, D.N. den Hartog, R. Folger	The relationship between ethical leadership and core job characteristics	2010	454	34.92
6	L. Dragoni	Understanding the emergence of state goal orientation in organisational work groups: The role of leadership and multilevel climate perceptions	2005	264	14.67
7	A. Joshi, M.B. Lazarova, H. Liao	Getting everyone on board: The role of inspirational leadership in geographically dispersed teams	2009	197	14.07
8	D. Liu, X. Li, R. Santhanam	Digital games and beyond: What happens when players compete?	2013	187	18.7
9	J.-Y. Son	Out of fear or desire? Toward a better understanding of employees' motivation to follow IS security policies	2011	181	15.08
10	A.D. Stajkovic	Development of a core confidence-higher order construct	2006	174	10.24

5.0 CONCLUSION

This bibliometric analysis illuminates the employee motivation and performance research landscape. Articles dominate publications, reflecting the topics' scholarly importance. Conference papers indicate practical research applications. Prolific authors and source titles were identified, showcasing influential voices and platforms. "Motivation" and "performance" keywords are central, underscoring their organisational studies significance.

This study, despite its contributions, has limitations. The study concentrated on bibliometric indicators but did not delve into more sophisticated data analysis techniques, such as network analysis or sentiment analysis, that could have provided a deeper understanding of research trends and themes. In addition, the selection of the Scopus database may have introduced bias, as its coverage differs from that of other databases. These limitations should be considered in future research.

With regards to the implications of this study, the primary findings hold substantial relevance for practitioners and managers, as it sheds light on the extensive body of research pertaining to employee motivation and performance. Gaining insight into the primary contributors and influential sources can be advantageous in the process of decision-making and the execution of strategies aimed at improving worker motivation and performance. This investigation provides more support for the fundamental significance of motivation and performance within the realm of organisational studies, from a theoretical standpoint. This highlights the necessity for additional investigation into the complex interconnections among

these factors and the possibility of employing multidisciplinary methodologies to enhance theoretical frameworks within this discipline.

Future research could benefit from longitudinal studies tracking changes in employee motivation and performance over time, cross-cultural investigations into the influence of culture on motivation and performance, and examinations of how technology impacts motivation and performance in remote work settings. Additionally, studies could explore the impact of different leadership styles on motivation and performance, investigate the relationship between employee well-being and performance, and analyse how organisational culture and job design affect motivation and performance. Further research could also delve into employee engagement, performance measurement and feedback, and the effectiveness of training and development programs in enhancing motivation and performance.

Furthermore, future research should also consider conducting comparative studies across multiple databases to shed light on coverage variations. In addition, investigating the interdisciplinarity of employee motivation and performance research could provide a more comprehensive perspective.

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CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest regarding the publication of this study.

CO-AUTHOR CONTRIBUTION

RMZ interpreted the results and wrote the discussions, while AA contributed to the introduction, conclusion, abstract, and methodology. SA conducted the literature reviews, and YA and FNA contributed to the introduction and methodology. All authors reviewed and approved the final manuscript.

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