

Reforming police human capital management through functional positions and competency-based appraisal systems: A systematic review (2020-2025)

Bagus Panuntun^{1*},  Arthur Josias Simon Runturambi²

^{1,2}School of Strategic and Global Studies, Universitas Indonesia; baguspanuntunui@gmail.com (B.P.) simonrbi@yahoo.com (A.J.S.R.)

Abstract: Strengthening the competence and professionalism of police officers is a strategic issue in security sector institutional reform in the era of disruption. This study aims to identify, synthesize, and systematically analyze scientific literature published between 2020 and 2025 that discusses functional position models and competency-based performance appraisal systems within the context of the National Police. A systematic literature review (SLR) approach was employed, guided by the PRISMA protocol, resulting in 87 articles selected from five internationally reputable databases. Thematic analysis grouped the findings into four main areas: competency enhancement, appraisal systems, restructuring of functional positions, and institutional integration. The results indicate a predominance of qualitative and mixed-methods approaches, with significant attention given to psychosocial well-being, equity in evaluation, and transformative leadership. The absence of an integrative model that systematically combines these three aspects reveals a conceptual gap in the literature. This study contributes a synthesized framework that integrates the technocratic and humanistic dimensions of police HRM and recommends an evidence-based, interdisciplinary research agenda.

Keywords: *Functional positions, Performance appraisal, Police competencies, Professionalism, Systematic review.*

1. Introduction

Amid a global landscape characterized by technological disruption, a crisis of public confidence, and the complexity of new security challenges, police agencies face multidimensional pressures to transform. The changing dynamics of crime-from street crime to cyber, transnational terrorism and data-driven criminality-demand structural and cultural adaptations that go far beyond conventional administrative reforms [1, 2]. At the same time, public expectations for transparency, accountability and professionalism are rising, reinforced by the reach of social media that can expose authorities' actions in real-time [3].

In the face of these dynamics, two strategic elements are crucial cornerstones for police institutional transformation: strengthening competencies and increasing professionalism. Countries such as the UK, Ireland and Canada have implemented structural reforms through the establishment of police professional bodies and improved research-based training standards [4, 5]. Often, however, the implementation of these reforms is hampered by internal factors, such as resistance to change, structural cynicism, and weak transformative leadership [6, 7]. This situation is exacerbated by unclear career development within the structure of the position, as well as a performance appraisal system that is not aligned with the professional dynamics of the apparatus.

In response to these complex challenges, the concept of functional positions emerged as an alternative to rigid hierarchical structures. This approach promises organizational flexibility, increased employee engagement, and strengthened accountability based on specific skills [8]. On the other hand, competency-based performance appraisal systems - including the application of technologies such as Behaviorally Anchored Rating Scales (BARS) and the Internet of Things (IoT) - have shown potential

in creating objective and adaptive evaluation systems [9, 10]. However, the literature shows that the application of these approaches often proceeds in isolation, not systematically integrated into police institutional reform strategies.

Therefore, a major gap identified in the current literature is the absence of comprehensive studies that explicitly synergize functional position structures, performance appraisal mechanisms and police competency strengthening strategies within a single security sector human resource management framework. Most studies are partial - focusing on a single dimension or limited to a specific context - without offering an integrative model that can be adapted across countries and cultures [11-13].

Furthermore, there is a void in the systematic literature that analyzes best practices, implementation barriers and innovative approaches in parallel. Yet, in the context of hierarchical policing, which is strongly tied to organizational culture, synergies between structure design, evaluation systems, and competency development are key to the long-term success of reforms [14, 15].

Based on this urgency, this study aims to compile a systematic literature map published in the period 2020-2025, with a focus on strategies to strengthen the competence and professionalism of police officers through the integration of functional position policies and competency-based performance appraisal systems. Using a *systematic literature review* and *evidence-based synthesis* approach, this study not only maps methodological trends and thematic distribution in the global literature, but also identifies conceptual and practical gaps that can be used as a foundation for institutional reform in the public security sector.

The main contributions of this study are conceptual, policy and practical. First, this study offers an integrative analysis model that has not been explored in previous academic studies. Second, this study provides an empirical and conceptual basis for policy makers in designing a more responsive and equitable police human resource management framework. Third, the results of this synthesis are expected to encourage an interdisciplinary research agenda that links issues of public management, security policy, and organizational governance in the context of developing and developed countries.

To date, no systematic study has been found that explicitly integrates the themes of functional positions, competency-based assessment systems, and police professionalism in one cross-country conceptual framework for the period 2020 to 2025. Thus, by closing the gap between the fragmentation of the literature and the need for evidence-based reforms, this research offers a strategic contribution in redesigning the future of policing institutions that are professional, competent and adaptive to the challenges of the 21st century.

2. Research Methodology

2.1. Research Design

This study applies the *Systematic Literature Review* (SLR) method to identify, evaluate, and synthesize scientific *literature* related to strategies to strengthen the competence and professionalism of police officers. The SLR method was chosen because it allows researchers to summarize empirical evidence scattered in various academic publications in a structured, transparent and replicable manner. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol was used as a reference in structuring the review stages, starting from literature identification, selection, data extraction, to thematic analysis. This approach provides methodological assurance of the validity and reliability of the review results.

2.2. Inclusion and Exclusion Criteria

The researcher set inclusion criteria to screen relevant literature that met the review objectives. The articles included had to fulfill several conditions, namely: (1) published between 2020 and 2025; (2) written in English or Indonesian; (3) focused on issues of police competence, functional positions, performance appraisal systems, or human resource management in the public sector; and (4) available in *full-text* for *full* analysis. Conversely, articles will be excluded from the review if: (a) present only an

abstract without the full text; (b) are oriented towards military or political contexts that are not relevant to civilian policing reform; and/or (c) are duplicative or have redundant substance.

2.3. Literature Search Strategy

Article searches were conducted through five highly reputable scientific databases, namely Scopus, Web of Science, ScienceDirect, ProQuest, and Google Scholar. The researchers used a Boolean search technique with a combination of main keywords, including: "*police competency*", "*functional position*", "*performance appraisal*", "*public sector HRM*", and "*police professionalism*". This strategy was designed to capture the wide variety of terms used in the global literature on the topic under study. The initial search yielded 200 articles which were further screened through a systematic filtering stage.

2.4. Article Selection Procedure

The article selection process in this review followed the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol to ensure transparency, traceability and methodological accountability. The procedure included four main stages: identification, screening, eligibility assessment, and final inclusion.

As can be seen in Figure 1, 200 articles were identified through searching selected databases. Of these, 18 articles were removed at an early stage due to duplication, leaving 182 articles for the screening process based on title and abstract. At this stage, 65 articles were eliminated because they were not relevant to the focus of the study.

A total of 117 articles were prepared for full-text review; however, 10 of them could not be accessed in full due to access restrictions or the unavailability of complete documents. An eligibility assessment was then conducted on the remaining 107 articles, resulting in the exclusion of 20 articles based on specific criteria. Specifically, 11 articles were deemed irrelevant to functional competencies or police performance assessment, 5 articles employed military or political contexts that were inconsistent with civilian law enforcement, and 4 articles provided only abstracts without full texts. Ultimately, 87 articles were deemed eligible and included in the systematic analysis. This rigorous selection process ensured that only thematically relevant, well-documented, and methodologically sound studies were utilized in the synthesis and development of evidence-based recommendations.

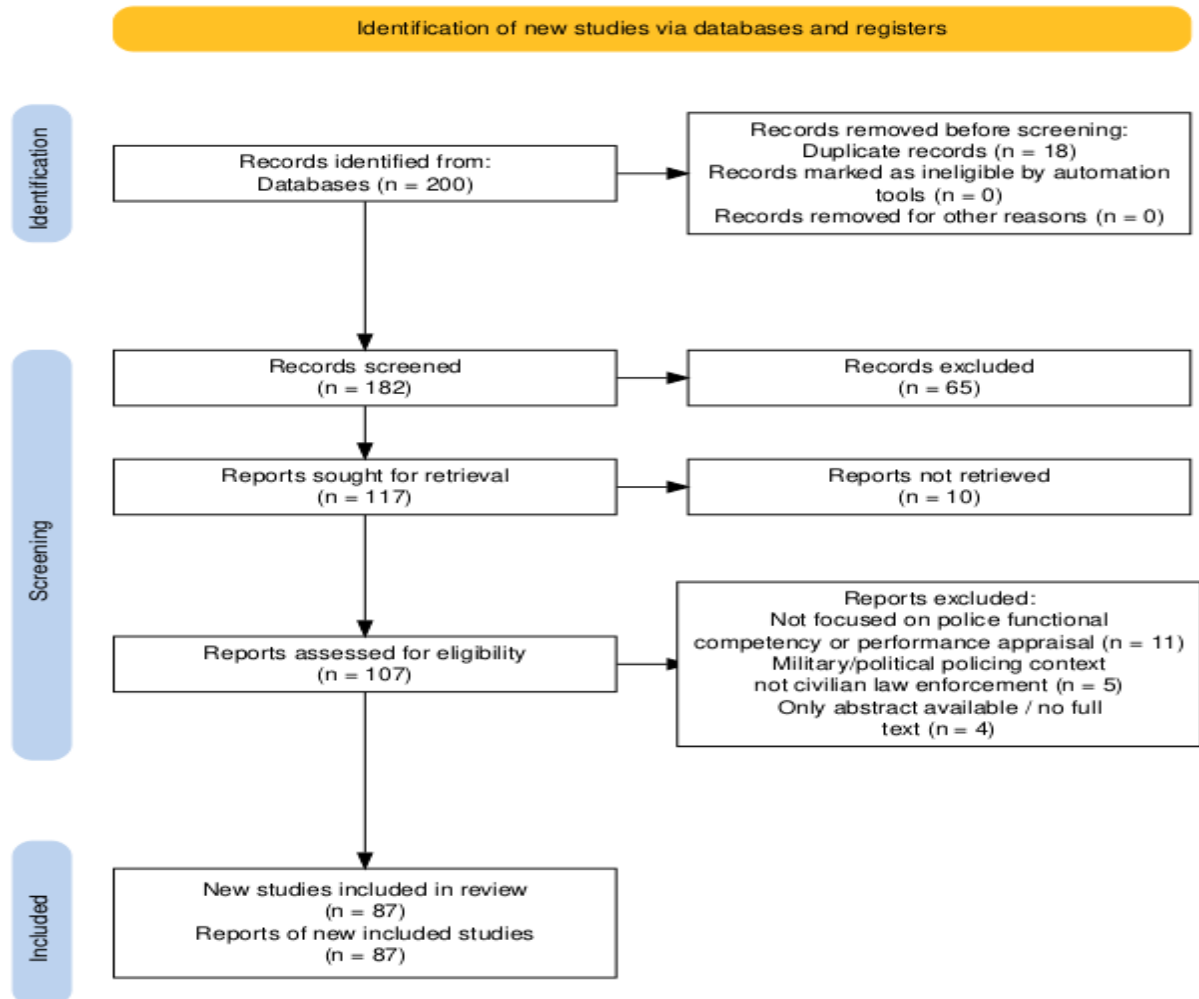


Figure 1.
PRISMA 2020 Flow Diagram of the Article Selection Process.

As outlined in the PRISMA flow diagram (Figure 1), the systematic screening process culminated in the selection of articles whose details are comprehensively summarized in Table 1.

Table 1.
Descriptive Summary of Articles Included in the Systematic Review (2020–2025)

Author	Year	Author	Year	Author	Year	Author	Year
Pujiono, et al. [16]	2020	Rasheed, et al. [17]	2023	Henson [18]	2024	Tyskbo and Styhre [19]	2023
Onubi and Carpio [20]	2025	Olson, et al. [21]	2023	Opatha and Takahashi [22]	2024	Lenz, et al. [23]	2023
Huang, et al. [24]	2024	Garengo, et al. [25]	2022	Karakus, et al. [26]	2024	Natria, et al. [27]	2022
Pepple and Ambilichu [28]	2024	Naji, et al. [29]	2022	McCabe, et al. [30]	2024	De Clercq and Pereira [31]	2022
Vispoel, et al. [32]	2023	Abdelhalim [33]	2022	Raharja and Muhyi [34]	2024	Kim, et al. [35]	2022
Rafique, et al. [36]	2022	Yimam [37]	2022	Figueiredo and Rodrigues [38]	2024	Thakur and Dhar [39]	2022
Muhammad, et al. [40]	2025	Lohman [41]	2021	Vieregge, et al. [42]	2024	Saidy, et al. [43]	2022
Suryanarayana [44]	2024	Liao, et al. [45]	2021	Ahmad, et al. [46]	2024	O'Brien, et al. [47]	2022
Obeng and Atan [48]	2024	Rahmansyah San, et al. [49]	2021	Heim, et al. [50]	2023	Hong, et al. [51]	2022
Pham, et al. [52]	2024	Fakhari and Din [53]	2021	Al-Ameri, et al. [54]	2023	Samreen, et al. [55]	2022
Ahmad, et al. [46]	2024	Mathibe and Chinyamurindi [56]	2021	Azad and Kumar [57]	2023	Dawes, et al. [58]	2022
Zhang, et al. [59]	2024	Mehmood, et al. [60]	2020	Alshareef [61]	2023	Rana and Singh [62]	2022
Hong and Zainal [63]	2024	Gorenak, et al. [64]	2020	Lockie, et al. [65]	2023	Ismail, et al. [66]	2022
Langove, et al. [67]	2024	Zhang [68]	2025	Xu, et al. [69]	2023	Hassan [70]	2022
Aguilar, et al. [71]	2024	Sohal and Sharma [72]	2025	Rawat, et al. [73]	2023	Snyman [74]	2022
Rozkwitalska-Welenc, et al. [75]	2024	Neher, et al. [76]	2024	Jabber, et al. [77]	2023	Piotrowski, et al. [78]	2021
Roberts [79]	2023	Liu, et al. [80]	2024	Malesa and Maleka [81]	2023	Zito, et al. [82]	2021
Riyanto, et al. [83]	2023	Shava and Ndebele [84]	2024	Paul, et al. [85]	2023	Koedijk, et al. [86]	2021
Al Ramahi, et al. [87]	2023	Zhou, et al. [88]	2024	Pham, et al. [89]	2023	Majidi, et al. [90]	2021
Arentsen, et al. [91]	2021	Shava and Chinyamurindi [92]	2021	Zhao, et al. [93]	2020	Gerber, et al. [94]	2025
Bahri, et al. [95]	2021	Chu and Zhang [96]	2020	Cui [97]	2020	Liu, et al. [98]	2025
Sloan and Geldenhuys [99]	2021	Lee [100]	2020	Aboramadan, et al. [101]	2020		

2.5. Data Analysis Technique

The analysis was conducted using a *thematic* analysis approach on the content of the 87 selected articles. This involved a thorough reading, identification of major themes, thematic clustering and conceptual inference. Four main themes were identified: *Competency Strengthening*, *Performance Appraisal System*, *Functional Position Model*, and *Integration Model*. To support visual interpretation, researchers created methodology distribution charts, word clouds of dominant keywords, distribution of journal publishers, and mapping of productive authors. Content analysis was conducted manually with the help of a category-based *spreadsheet coding* framework, which contained the core information of each article.

2.6. Validation and Credibility Strategy

To ensure the methodological quality of this study, the researchers applied a number of validation strategies. First, *peer debriefing* was conducted with experts in public management, institutional policy and police studies to validate thematic interpretations. Second, an *audit trail* was developed to record each step of the article selection and analysis process, so that it could be traced and repeated by other researchers. Third, *content triangulation* was conducted by matching the themes generated from the analysis with the original content of the article (title, abstract, and discussion section). This approach ensures that each thematic category truly represents the scientific substance of the article and is not the result of a one-sided interpretation.

2.7. Quality Appraisal

Quality Appraisal To improve systematic validity, each final-selected article ($n = 87$) was assessed for methodological quality using the MMAT tool (2018 version). Criteria included clarity of purpose, appropriateness of design, reliability of methods, openness of data, and coherence between results and conclusions. MMAT scores were used to classify articles into three levels of high ($\geq 75\%$), medium (50–74%), and low ($< 50\%$) quality, which were then used as a basis for consideration in the interpretation of results. Based on the assessment, the following results were obtained

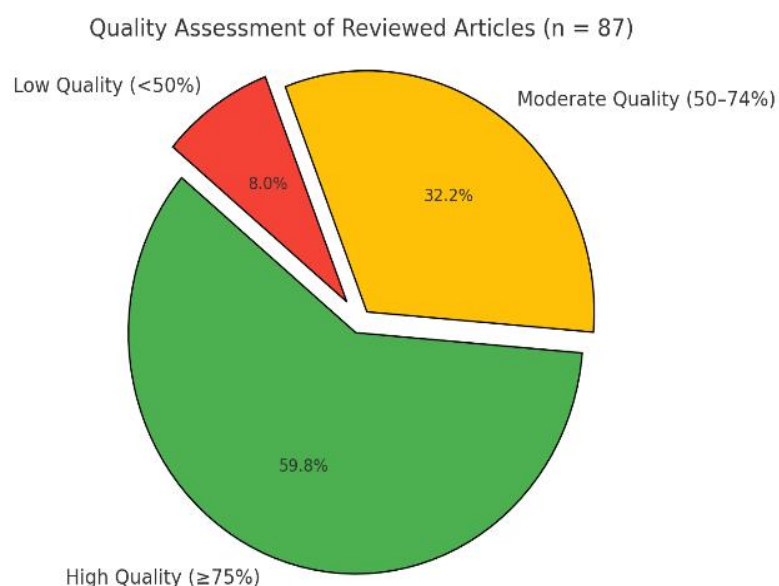


Figure 2.
Quality Distribution of Reviewed Articles Based on MMAT

Figure 2 shows that the majority of articles (59.8%) fall into the high-quality category, which means that most of the analyzed studies have a strong methodological foundation. These articles generally showed consistency between objectives and methods, had good reporting transparency, and presented valid results based on an appropriate analytical framework.

A total of 32.2% of articles were classified as medium quality, with weaknesses generally found in reporting sampling methods, instrument validity, or limitations in the description of data analysis. Meanwhile, only 8% of articles were classified as low quality, characterized by a mismatch between methods and conclusions or a lack of supporting empirical data.

This distribution provides a strong foundation for the validity of the thematic synthesis in this review. With a large proportion of high-quality articles, the findings generated from this systematic review can be considered representative and methodologically credible. The transparency in presenting

the quality of the articles also provides clarity to readers and reviewers on the extent to which the conclusions drawn are derived from valid literature.

3. Results

3.1. Type of Methodology Used

Figure 3 presents the distribution of the types of research methodologies used in the 87 articles analyzed in the systematic review over the period 2020 to 2025. This representation provides a deeper understanding of the trends in methodological approaches used by researchers in studies related to bureaucratic reform, functional positions, and human resource management in the public sector, particularly the police.

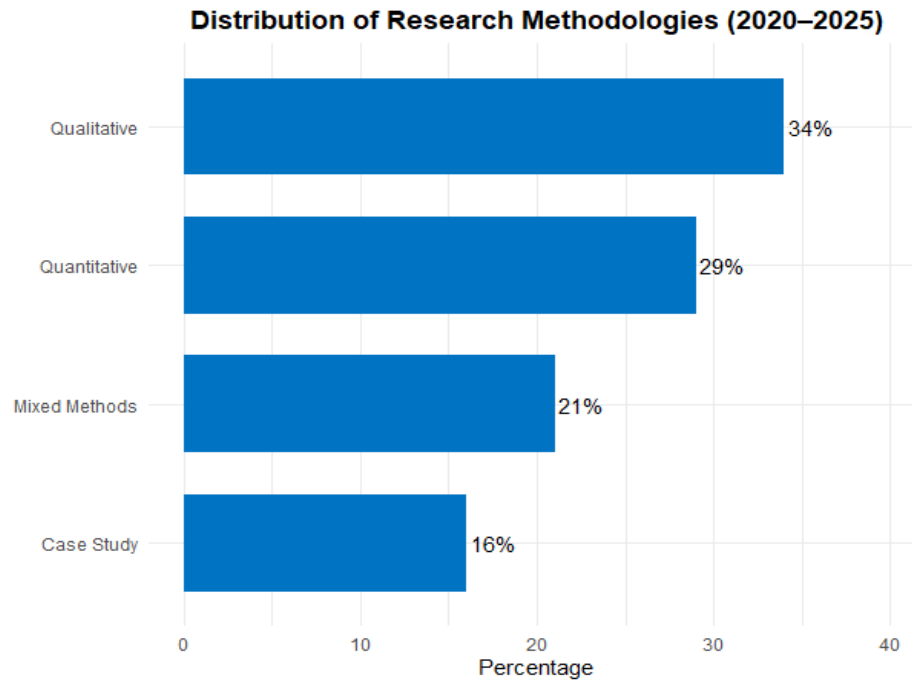


Figure 3.
Distribution of types of research methodologies used.

Based on Figure 3 above, it can be seen that the qualitative approach is the most widely used methodology in the reviewed articles, which is 34%. This shows the tendency of researchers to explore phenomena with an in-depth and contextual approach. Furthermore, quantitative approaches accounted for 29% of the total studies, indicating the use of numerical data and statistical measurements still have a significant role. Mixed methods were also widely used (21%), reflecting an integrative effort between qualitative and quantitative strengths. Case studies occupied the smallest portion, at 16%, which were generally used to explore specific cases in depth.

3.2. Theme Distribution

The thematic focus of the 87 selected articles in this systematic review is presented in Figure 4. Classification was based on content analysis of the main topics and conceptual contributions of each article. The results grouped the themes into four main domains that reflect the direction of strategic development to strengthen the competence and professionalism of police officers.

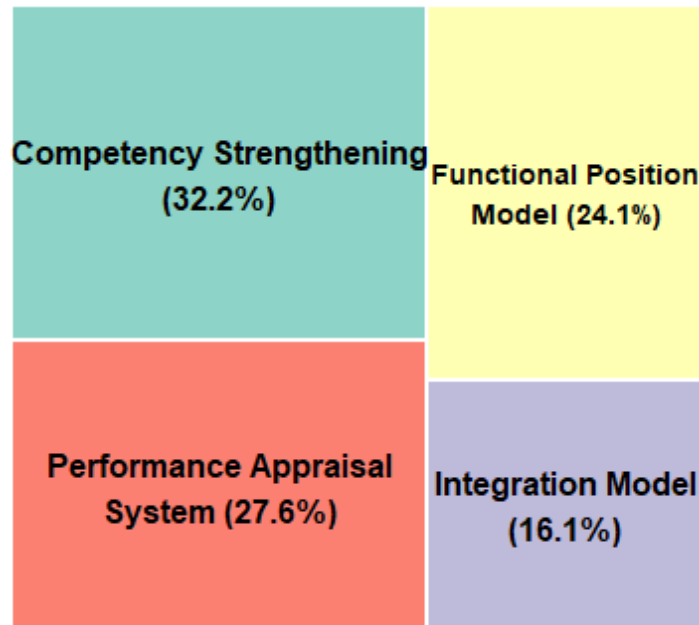


Figure 4.
Thematic Focus Distribution of Reviewed Articles.

Figure 4 shows that the theme of "Competency Strengthening" is the main focus in the literature (32.2%). This reflects widespread attention to the importance of individual and organizational competency strengthening in supporting police professionalism. Furthermore, "Performance Appraisal System" ranks second (27.6%), indicating the urgency of competency-based performance evaluation as an accountable performance management tool. The "Functional Position Model" theme also received significant attention (24.1%), in line with Polri's institutional reform efforts through position restructuring and strengthening functional accountability. Meanwhile, the "Integration Model" (16.1%) describes a holistic approach that incorporates various aspects—such as leadership, human resource management, and organizational governance—into a more comprehensive reform model. These findings reinforce the position that the success of strengthening the competence and professionalism of police officers depends on the integration of individual strengthening (competence), institutional restructuring (functional positions), and a fair evaluation system (performance appraisal). The combination of these four themes forms a conceptual foundation that can be used in designing a police institutional reform framework that is adaptive to the challenges of the disruption era.

3.3. Dominant Keywords in Systematic Review Articles

To gain a more structured understanding of the main thematic foci in the literature addressing strengthening the competence and professionalism of police officers, a frequency analysis of keywords appearing in 87 selected articles published between 2020 and 2025 was conducted. This analysis used text mining techniques on article titles and abstracts, with the aim of identifying the most dominant conceptual patterns. The results of this process were then visualized in the form of a word cloud as an initial graphical representation reflecting the concentration of key issues and themes in the corpus of literature reviewed.

3.4. Distribution of Top Journals in Article Publication

To determine the distribution of literature sources referenced in this systematic analysis, a mapping of the most productive scientific journals published articles related to police competencies, public sector human resource management, and functional positions during the period 2020 to 2025 was conducted. This analysis is important to show the scientific focus and publishing trends in disciplines relevant to strengthening police institutions. The results of the analysis are presented in Figure 6.



Figure 6.
Top 10 Journal Article Publishers (2020-2025).

Based on Figure 6, it is known that the Frontiers in Psychology journal occupies the top position as the most productive journal, indicating that the perspective of psychology - especially organizational psychology and work psychology - is very dominant in discussing issues of competence and performance of public apparatus, including the police. Furthermore, the Journal of Applied Psychology and the International Journal of Environmental Research and Public Health occupy the second and third positions respectively, indicating that aspects of work behavior and organizational health are significant topics of study. Other journals such as Sustainability Switzerland, Plos One, and International Journal of Organizational Analysis also occupy important positions, reflecting an interdisciplinary approach in understanding the dynamics of public sector HRM. The existence of the journals Current Psychology, Review of Integrative Business and Economics Research, and International Journal of Productivity and Performance Management confirms the importance of a crosscutting approach in analyzing public institutional performance and reform. The fact that these journals span psychology, management, public health, and organizational economics suggests that the discussion of police competence and professionalism is a multidisciplinary issue. Thus, Figure 6 not only illustrates the main literature sources on which the review is based, but also emphasizes the importance of integrating psychological, managerial, and policy approaches in supporting functional position-based bureaucratic reform and competency-based appraisal systems within Polri.

3.5. Most Productive Authors in Review (2020–2025)

To identify intellectual actors who have played a major role in developing literature related to police institutional transformation and public sector human resource management, a mapping of the most productive authors over the period 2020 to 2025 was conducted. This analysis is useful for tracing the contributions of scientists and researchers who consistently pay attention to the topics of competence, functional positions, and performance appraisal in the context of public sector bureaucracy. The results of the analysis are presented in Figure 7.

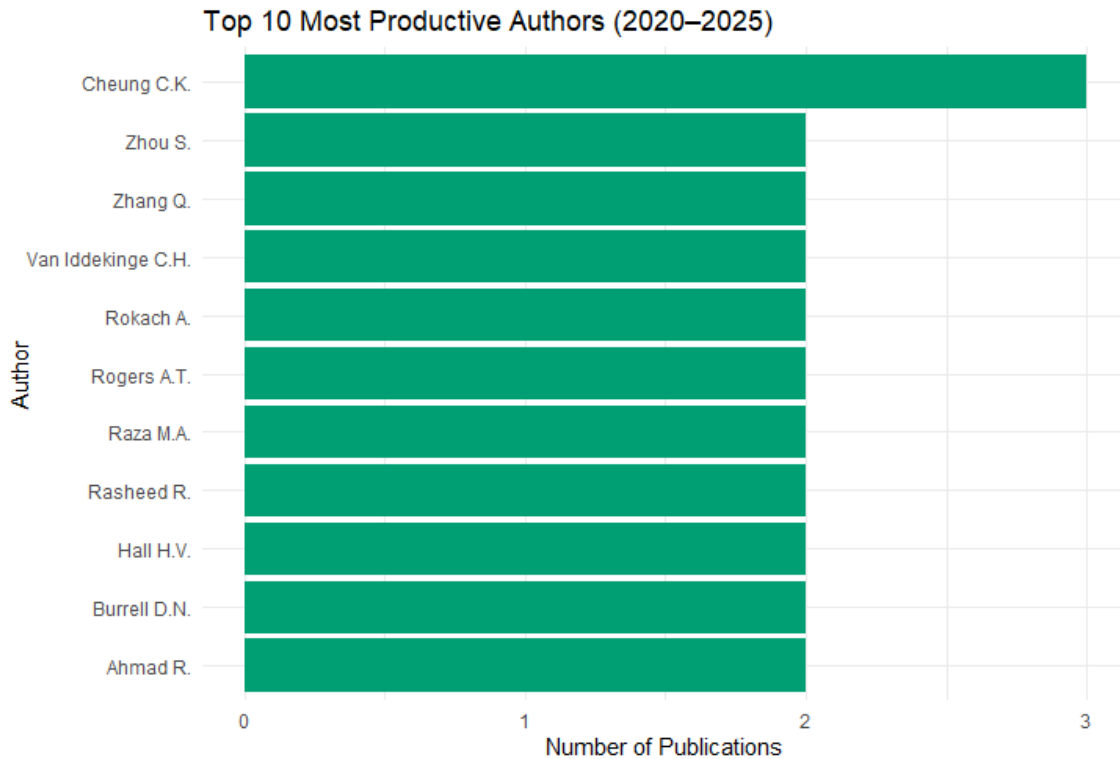


Figure 7.
Top 10 Most Productive Authors (2020–2025).

Based on Figure 7, it is known that in the span of the last five years Cheung C.K. has become the most productive author with three publications related to the topic of study. This shows his consistency in researching public sector HR management issues or organizational professionalism. Other authors such as Zhou S., Zhang Q., Van Iddekinge C.H., and Rogers A.T. have two publications each, showing significant contributions. The distribution of authors from various backgrounds and international institutions shows that the issues of apparatus competence, functional positions, and bureaucratic reform are gaining widespread attention globally. In addition, the dominance of authors from organizational psychology and public management backgrounds reinforces the position of the interdisciplinary approach as an important foundation in the institutional transformation of the security sector. Thus, Figure 7 illustrates that not only academic institutions, but also individual intellectual figures play a central role in expanding the scientific discourse related to the governance of police human resources that are more adaptive, professional, and competency-based.

3.6. Clustering Key Findings

In-depth analysis of the 87 selected articles revealed a number of key findings that enrich the

understanding of strategies to strengthen the competence and professionalism of police officers through a functional position approach and competency-based performance appraisal system. The findings can be grouped into four main clusters, namely (1) Best Practices from Various Countries; (2) Novelty of HR Management and Performance Appraisal Approaches; (3) Implementation Barrier Factors; (4) Importance of Systemic Integration and Holistic Approach.

3.6.1. Best Practices from Different Countries

Several countries have made significant progress in designing competency-based policing systems. In New Zealand, for example, the "Policing Excellence" and "Prevention First" programs successfully integrated performance orientation with functional roles in the police organizational structure [102]. Meanwhile, studies in Japan show that the transition from a seniority system to a task-based approach still faces challenges in the precise definition of functional roles [103]. Indonesia is one of the developing countries that stands out with its ethical value-based reform drive and HRM system that is starting to adopt NPM principles.

3.6.2. Novelty of HR Management and Performance Appraisal Approach

Many articles highlight innovations in police human resource management, such as the shift towards Strategic Human Resource Development (SHRD), the role of transformational leadership in competency improvement, and the adoption of key performance indicators (KPIs)-based appraisal systems. Research from Indonesia shows that technology adoption and transformational leadership approaches have a positive impact on strengthening police competencies, especially in the context of digital public services [104]. On the other hand, some articles warn that overly administrative appraisal systems with no link to career development can actually demotivate.

3.6.3. Implementation Barrier Factors

Some of the main barriers that emerge from various studies include unclear job descriptions in functional positions, institutional unpreparedness in adopting a merit-based system, the dominance of political interests in the placement of officials, and organizational cultural resistance to performance transparency. Studies in Japan and Indonesia consistently show that the success of these systems depends not only on the formal design, but also on institutional alignment with the values of professionalism, ethics, and accountability [103, 105].

3.6.4. Importance of Systemic Integration and Holistic Approach

Most articles underline that the integration of functional positions, performance appraisal systems and competency strengthening must be systemic and contextual. The issue of trust-building between the police institution and the community is also an important indicator of the success of institutional reform. A holistic approach that incorporates procedural justice, results-based incentives and a professional work culture is considered more sustainable than top-down administrative reforms.

4. Discussion

The results of the systematic review show that the majority of studies analyzing the issue of police competence and professionalism in the period 2020 to 2025 use qualitative (34%) and mixed methods (21%) approaches. The dominance of these two explorative approaches indicates that the issue of police professionalism is seen as a complex, contextual phenomenon, and cannot be adequately explained through quantitative data alone.

Thus, understanding the structural dynamics, behaviors, and work ethics of the police requires in-depth methodological exploration, as has been emphasized in previous literature [106, 107]. This finding is in line with the studies of Aydin, et al. [108] and Renner, et al. [109] that emphasize the importance of interpretive methods in capturing the dynamics of social relations and decision-making in the police environment.

This trend also shows an epistemological shift in criminology and public administration studies, where qualitative approaches are no longer considered as alternative methods, but rather as the main strategy to uncover the complexities of institutional reform.

The mixed methods approach reinforces this trend because it is able to bridge the power of numerical data with the depth of qualitative narratives, resulting in a more holistic synthesis. This is in line with the increasing recognition of the need for research designs that are responsive to social and organizational contexts [110].

In terms of thematic content, the focus of the literature falls into four main domains: competency strengthening (32.2%), performance assessment system (27.6%), functional position model (24.1%), and institutional integration (16.1%). The dominant focus on competency issues indicates that improving the quality of individual officials is considered a key foundation in driving institutional transformation. Many studies in this domain discuss strategic training, adaptive capacity building, and the establishment of professional ethics based on social responsiveness [111]. This finding strengthens the results of the study by Afandi, et al. [112] which shows that organizational needs-based training has a positive impact on job skills and organizational behavior at the local level.

Meanwhile, the literature on performance appraisal systems highlights the importance of evaluations that are fair, competency-based and integrated with career planning. A key challenge found is the tendency for administrative evaluations to not reflect the substantive contributions of individuals. Some emerging innovations include the use of technologies such as the Internet of Things (IoT) and machine learning-based assessment algorithms [9] as well as qualitative approaches that emphasize collegial and reflective perception-based evaluation [113]. This is in line with research by Van Thielen, et al. [12] which showed that a holistic appraisal system improves officer engagement and well-being.

The functional position model is positioned as a managerial instrument to create adaptive, accountable and meritocratic governance. Much of the literature in this domain underscores the importance of transitioning from a vertical bureaucratic structure to a flexible, function-oriented position design [114].

Functional positions are also considered capable of promoting professionalism through role specialization and standardization of work processes, as has been applied in the context of public service reform in various countries [115, 116]. This finding is in line with the findings of Morales, et al. [117] who showed that an adaptive job structure was a determinant of the success of civil bureaucracy reform in Mexico.

Furthermore, psychosocial approaches in a number of articles show that professionalism is not only related to technical competence, but is also influenced by emotional well-being and supportive working conditions. Issues such as job stress, satisfaction, and mental health appear consistently in keyword analysis, indicating a strong attention to the well-being dimension in police human resource management [57, 118].

This is reinforced by the study of Kapoor, et al. [119] which confirmed that psychological well-being contributes significantly to the productivity and emotional stability of security personnel in the Asian region.

The distribution of journals and prolific authors in this study also shows a strong interdisciplinary trend, especially at the intersection of applied psychology, public administration, and organizational management. This suggests that the issue of police institutional reform is no longer the exclusive domain of law or policy science, but has become a complex interdisciplinary object of study.

This approach is supported by global trends in the development of behavioral public administration concepts and the integration of organizational health management in the context of public services [120, 121].

Comparing the results of the thematic classification (Figure 4) and the keyword analysis (Figure 5), it appears that they complement each other. The distribution of main themes provides the structure of the conceptual categorization, while the word cloud displays the linguistic intensity of the most frequently discussed issues. This finding reinforces the validity of the synthesis that the dimensions of competence,

performance evaluation, and emotional well-being are key foundations in efforts to strengthen Polri professionalism.

On the other hand, the results of the article quality assessment (Figure 2) showed that the majority of sources (59.8%) were categorized as high quality based on the MMAT criteria. This provides a strong methodological foundation for synthesizing the findings. Articles of medium and low quality have been analyzed proportionally and not used as the basis for the main conclusions. This strategy is in line with the principle of evidence-based policy and transparent reporting in systematic reviews [122].

Cross-country experiences also enrich the discussion in this study. For example, in Japan and New Zealand, institutional reforms integrating performance appraisal systems and functional titles were carried out gradually through building evaluative cultures and organizational learning structures. In Japan, evaluation became not only a control tool but also a learning mechanism, while in New Zealand, participatory evaluation practices were shown to increase employee ownership and motivation [123-125]. In Indonesia, while NPM and good governance-based reforms have been widely adopted, their implementation still faces structural and cultural challenges, such as resistance to transparency and capacity gaps between institutions [123].

Thus, systemic integration between functional positions and appraisal requires an institutional design that is not only administratively adaptive, but also responsive to the social and psychological dynamics of the organization.

As such, this review not only presents a map of the literature, but also identifies solid thematic integrations, transparent methodological assessments, and research gaps that can be further explored. Some of the gaps that emerged include: (1) the limitations of quantitative research based on longitudinal data in assessing the long-term impact of institutional reform; (2) the lack of structured intervention studies based on training and performance evaluation in the police context; and (3) the need for an integrative model between functional positions and appraisal systems based on psychosocial and collaborative approaches.

These findings open up opportunities for a future research agenda that is not only descriptive, but also explanatory and transformative, in line with the needs of security sector reform in the era of disruption.

5. Conclusion

This systematic review reveals that strengthening the competence and professionalism of police officers is highly dependent on the successful integration of functional position systems and competency-based performance assessment mechanisms. The global literacy analyzed shows that although innovative approaches such as technology-based evaluation and strategic training models have been developed, there is still a disconnect between structural, managerial, and psychosocial well-being aspects in implementation practices in various countries, including Indonesia.

Methodologically, the majority of the articles reviewed were of high quality, giving strong validity to the conclusions of this synthesis. Substantively, there is a dominant trend towards qualitative and thematic approaches such as competence, appraisal, and well-being.

However, longitudinal quantitative studies and experimental studies are still rare, providing opportunities for further exploration. The main limitations of this study lie in the limited descriptive secondary data, potential publication bias in selected databases, and the lack of external validation of the proposed synthesis model. Key recommendations include the need to develop an integrative model that incorporates evidence-based and contextualized functional positions and appraisals. Future studies are recommended to use longitudinal mixed methods approaches and policy intervention studies to test the real impact of police institutional reform.

The policy implication of this study is the importance of promoting police human resource management reform through an adaptive, participatory and sustainable approach. Reforms should not only focus on formal structures, but also emphasize building a professional work culture, psychological well-being, and a fair evaluation system as the foundation of democratic and humanistic security sector governance.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

© 2025 by the authors. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] M. Roycroft, *Introduction*, in *Modern Police Leadership: Operational effectiveness at every level*, rabdan academy. Al Bhustan, Abu Dhabi, United Arab Emirates: Springer International Publishing, 2021.
- [2] J. F. Albrecht and G. Den Heyer, *Enhancing police service delivery: Global perspectives and contemporary policy implications*. New York, United States:: Springer International Publishing, 2021.
- [3] J. R. Greene, *On the biannual international conference criminal justice and security in central and Eastern Europe: Concerns and opportunities for international police and policing research*, in *Revija za Kriminalistiko in Kriminologijo, School of Criminology and Criminal Justice, Northeastern University*. Boston, United States: Ministry of Internal Affairs of the Republic of Slovenia Police, 2021.
- [4] R. Montgomery, "The role of the Canadian Association of Chiefs of Police in supporting the professionalization of police in Canada," *Policing: A Journal of Policy and Practice*, vol. 15, no. 1, pp. 222–233, 2021. <https://doi.org/10.1093/police/pay105>
- [5] J. Thompson and B. Payne, "Towards professionalism and police legitimacy? An examination of the education and training reforms of the police in the Republic of Ireland," *Education Sciences*, vol. 9, no. 3, p. 241, 2019. <https://doi.org/10.3390/educsci9030241>
- [6] W. G. Skogan, "Why reforms fail. Policing and Society," vol. 18, no. 1, pp. 23–34, 2008. <https://doi.org/10.1080/10439460701718534>
- [7] K. Kuen, C. Lum, and S. H. Kim, "What makes police officers resist research and evidence-based policing? Examining the role of organizational and environmental factors," *Policing: A Journal of Policy and Practice*, vol. 17, p. paad051, 2023. <https://doi.org/10.1093/police/paad051>
- [8] R. Triguero-Sánchez, J. Peña-Vinces, and J. Guillen, "Hierarchical distance and employees' commitment as conditioning of team-based work in the Spanish public sector," *Scandinavian Journal of Psychology*, vol. 62, no. 4, pp. 537–551, 2021. <https://doi.org/10.1111/sjop.12737>
- [9] T. A. Ahanger, A. Alqahtani, M. Alharbi, and A. Algashami, "Cognitive decision-making in smart police industry," *The Journal of Supercomputing*, vol. 78, no. 10, pp. 12834–12860, 2022. <https://doi.org/10.1007/s11227-022-04392-9>
- [10] M. A. Gillespie, J. Z. Gillespie, K. A. Sliter, M. C. Colatat, K. P. Nolan, and R. M. Guion, "An SK BARS system: Ongoing performance management with municipal police," *Public Personnel Management*, vol. 47, no. 1, pp. 93–114, 2018.
- [11] M. Mulvaney and M. Kianicka, "Social context of performance appraisals in public parks and recreation: A statewide study," *Journal of Park and Recreation Administration*, vol. 40, no. 2, pp. 2–19, 2022. <https://doi.org/10.18666/JPra-2021-10850>
- [12] T. Van Thielen, R. Bauwens, M. Audenaert, T. Van Waeyenberg, and A. Decramer, "How to foster the well-being of police officers: The role of the employee performance management system," *Evaluation and Program Planning*, vol. 70, pp. 90–98, 2018. <https://doi.org/10.1016/j.evalprogplan.2018.07.003>
- [13] P. T. Poblete, "Police performance and legitimacy: Lessons learned in crime mapping," *Academia Nacional de Policía*, vol. 13, no. 8, pp. 115–141, 2022. <https://doi.org/10.31412/rbcp.v13i8.933>
- [14] T. Reisberger, P. Reisberger, L. Copuš, P. Madzík, and L. Falát, "The linkage between digital transformation and organizational culture: Novel machine learning literature review based on latent dirichlet allocation," *Journal of the Knowledge Economy*, vol. 16, no. 1, pp. 2082–2118, 2024. <https://doi.org/10.1007/s13132-024-02027-3>
- [15] B. Zolak Poljašević, A. M. Gričnik, and S. Šarotar Žižek, "Human resource management in public administration: The ongoing tension between reform requirements and resistance to change," *Administrative Sciences*, vol. 15, no. 3, p. 94, 2025. <https://doi.org/10.3390/admsci15030094>
- [16] B. Pujiono, M. Setiawan, and R. Wijayanti, "The effect of transglobal leadership and organizational culture on job performance-Inter-employee trust as Moderating Variable," *International Journal of Public Leadership*, vol. 16, no. 3, pp. 319–335, 2020. <https://doi.org/10.1108/IJPL-11-2019-0071>
- [17] R. Rasheed, A. Rashid, N. A. Amirah, and A. Afthanorhan, "Quantifying the moderating effect of servant leadership between occupational stress and employee in-role and extra-role performance," vol. 24, no. 195, pp. 60–68, 2023.
- [18] A. R. Henson, "The impact of officers' perceived cultural and contextual competence on black men's appraisals of police," *Journal of Research in Crime and Delinquency*, vol. 61, no. 3, pp. 375–405, 2024.

- [19] D. Tyskbo and A. Styhre, "Karma chameleon: Exploring the leadership complexities of middle managers in the public sector," *International Public Management Journal*, vol. 26, no. 4, pp. 548-569, 2023. <https://doi.org/10.1080/10967494.2022.2106330>
- [20] H. O. Onubi and M. Carpio, "Voluntary workplace proenvironmental behavior on construction project sites: Antecedent roles of green human resource management practices, environmental awareness, and job control," *Journal of Construction Engineering and Management*, vol. 151, no. 4, p. 04025007, 2025. <https://doi.org/10.1061/JCEMD4.COENG-14165>
- [21] R. Olson, T. R. Cunningham, J. A. Nigam, W. K. Anger, A. Rameshbabu, and C. Donovan, "Total Worker Health® and Organizational Behavior Management: Emerging opportunities for improving worker well-being," *Journal of Organizational Behavior Management*, vol. 43, no. 4, pp. 280-319, 2023. <https://doi.org/10.1080/01608061.2022.2146256>
- [22] I. M. Opatha and Y. Takahashi, "Does social and organizational support moderate emotional intelligence training effectiveness?," *Behavioral Sciences*, vol. 14, no. 4, p. 276, 2024. <https://doi.org/10.3390/bs14040276>
- [23] L. Lenz, F. Hattke, J. Kalucza, and F. Redlbacher, "Virtual work as a job demand? Work behaviors of public servants during COVID-19," *Public Performance & Management Review*, vol. 46, no. 6, pp. 1382-1412, 2023. <https://doi.org/10.1080/15309576.2023.2217552>
- [24] Y. Huang, Y. Gu, and J. Wang, "Sharing employee management practices and work well-being: a moderated mediation model of organizational commitment and job autonomy," *Current Psychology*, vol. 43, no. 48, pp. 36586-36599, 2024. <https://doi.org/10.1007/s12144-024-07109-8>
- [25] P. Garengo, A. Sardi, and S. S. Nudurupati, "Human resource management (HRM) in the performance measurement and management (PMM) domain: A bibliometric review," *International Journal of Productivity and Performance Management*, vol. 71, no. 7, pp. 3056-3077, 2022. <https://doi.org/10.1108/IJPPM-04-2020-0177>
- [26] M. Karakus, M. Toprak, O. Caliskan, and M. Crawford, "Teachers' affective and physical well-being: emotional intelligence, emotional labour and implications for leadership," *International Journal of Educational Management*, vol. 38, no. 2, pp. 469-485, 2024.
- [27] D. Natria, Samian, and C. D. Riantoputra, "Employee accountability in Indonesia: The role of formalization, managerial monitoring behavior and perceived competence," *Plos One*, vol. 17, no. 12, p. e0278330, 2022. <https://doi.org/10.1371/journal.pone.0278330>
- [28] D. G. Pepple and C. A. Ambilichu, "Performance appraisal and employee commitment: The mediating role of job satisfaction," *European Management Review*, vol. 21, no. 1, pp. 237-250, 2024. <https://doi.org/10.1108/IJEM-07-2023-0335>
- [29] G. M. A. Naji *et al.*, "Do leadership, organizational communication, and work environment impact employees' psychosocial hazards in the oil and gas industry?," *International Journal of Environmental Research and Public Health*, vol. 19, no. 8, p. 4432, 2022. <https://doi.org/10.3390/ijerph19084432>
- [30] J. E. McCabe, P. E. O'Connell, D. Long, and C. Rasor-Cordero, *Understanding police operational performance*. United States: Pace University, Taylor and Francis, 2024.
- [31] D. De Clercq and R. Pereira, "Pandemic fears, family interference with work, and organizational citizenship behavior: Buffering role of work-related goal congruence," *European Management Review*, vol. 19, no. 3, pp. 508-523, 2022. <https://doi.org/10.1111/emre.12502>
- [32] W. P. Vispoel, H. Lee, T. Chen, and H. Hong, "Analyzing and comparing univariate, multivariate, and bifactor generalizability theory designs for hierarchically structured personality traits," *Journal of Personality Assessment*, vol. 106, no. 3, pp. 285-300, 2024. <https://doi.org/10.1080/00223891.2023.2268193>
- [33] M. T. M. Abdelhalim, "Effect of employee nationality on job performance of food and beverage operations in hotels," *African Journal of Hospitality, Tourism and Leisure*, vol. 11, no. 3, pp. 1143-1157, 2022.
- [34] S. u. J. Raharja and H. A. Muhyi, "Effects of organisational competence and commitment on cooperative human resource performance: A study on cooperatives in Bandung City, Indonesia," *Review of Integrative Business and Economics Research*, vol. 13, no. 2, pp. 176-196, 2024.
- [35] J.-R. Kim, Y. Ko, Y. Lee, and C.-J. Kim, "The moderating effect of organizational justice on the relationship between self-efficacy and nursing performance in clinical nurses," *Journal of Korean Academy of Nursing*, vol. 52, no. 5, pp. 511-521, 2022. <https://doi.org/10.4040/jkan.22076>
- [36] M. A. Rafique, Y. Hou, M. A. Z. Chudhery, M. Waheed, T. Zia, and F. Chan, "Investigating the impact of pandemic job stress and transformational leadership on innovative work behavior: The mediating and moderating role of knowledge sharing," *Journal of Innovation & Knowledge*, vol. 7, no. 3, p. 100214, 2022. <https://doi.org/10.1016/j.jik.2022.100214>
- [37] M. H. Yimam, "Impact of training on employees performance: A case study of Bahir Dar university, Ethiopia," *Cogent Education*, vol. 9, no. 1, p. 2107301, 2022. <https://doi.org/10.1080/2331186X.2022.2107301>
- [38] P. Figueiredo and R. Rodrigues, *Digital leadership and virtual performance*, in *new research on leadership styles and performance*. Lisboa, Portugal: Nova Science Publishers, Inc, 2024, pp. 187-202.

- [39] P. Thakur and R. L. Dhar, "Impact of diversity training on employees and consumers: A review and research agenda," *International Journal of Consumer Studies*, vol. 46, no. 5, pp. 1665-1690, 2022. <https://doi.org/10.1111/ijcs.12823>
- [40] M. Muhammad, W. Suleiman, M. A. A. Mamun, R. M. Jewel, and M. A. S. Mozumder, "Mediating effect of appraisal fairness between the relationship of appraisal satisfaction and employee performance appraisal: A case of Bauchi State Teachers Service Commission, Nigeria," *Cogent Business & Management*, vol. 12, no. 1, p. 2450297, 2025. <https://doi.org/10.1080/23311975.2025.2450297>
- [41] L. Lohman, "Evaluation of university teaching as sound performance appraisal," *Studies in Educational Evaluation*, vol. 70, p. 101008, 2021. <https://doi.org/10.1016/j.stueduc.2021.101008>
- [42] J. Vieregge, C. Sutter, and S. Sülzenbrück, "How sensory processing sensitivity shapes employee reactions to core job characteristics," *Zeitschrift für Arbeits- und Organisationspsychologie*, vol. 68, no. 1, pp. 17-35, 2023. <https://doi.org/10.1026/0932-4089/a000415>
- [43] J. Saidy, Z. Garanti, and R. Sadaka, "Technostress creators and job performance among frontliners: Theorizing the moderating role of self-efficacy," *Frontiers in Psychology*, vol. 13, p. 827027, 2022. <https://doi.org/10.3389/fpsyg.2022.827027>
- [44] A. Suryanarayana, *An empirical examination of intrinsic motivation, performance appraisal satisfaction, and performance outcomes among employees in select service sector organizations. In International Symposia in Economic Theory and Econometrics*. India: Osmania University, Emerald Publishing, 2024.
- [45] E. Y. Liao, A. Y. Wang, and C. Q. Zhang, "Who influences employees' dark side: A multi-foci meta-analysis of counterproductive workplace behaviors," *Organizational Psychology Review*, vol. 11, no. 2, pp. 97-143, 2021. <https://doi.org/10.1177/2041386620962554>
- [46] R. Ahmad, M. Nejati, B. Farr-Wharton, and T. Bentley, "Impact of leadership on unethical pro-organizational behavior: a systematic literature review and future research directions," *Journal of Leadership & Organizational Studies*, vol. 31, no. 3, pp. 338-367, 2024. <https://doi.org/10.3390/su16229980>
- [47] S. O'Brien, E. Galavan, and D. O'Shea, "Developing a competency framework for managers to address suicide risk in the workplace," *Human Resource Development Quarterly*, vol. 33, no. 2, pp. 157-178, 2022. <https://doi.org/10.1002/hrdq.21437>
- [48] H. A. Obeng and T. Atan, "Understanding turnover intentions: The interplay of organizational politics, employee resilience, and person-job fit in ghana's healthcare sector," *Sustainability (2071-1050)*, vol. 16, no. 22, p. p9980, 2024.
- [49] A. A. Rahmansyah San, M. Yahya, M. N. Fattah, A. Toha, E. Kembauw, and M. Sangadji, "Motivation and incentives on management effectiveness through performance evaluation system at the soppeng district police station," in *Proceedings of the International Conference on Industrial Engineering and Operations Management, Student of Management Magister Program, Sekolah Tinggi Ilmu Ekonomi Amkop, Makassar, Indonesia: IEOM Society*, 2021, pp. 3562-3569.
- [50] M. Heim, C. M. Schulz, F. Schneider, P. O. Berberat, M. Gartmeier, and K. Schick, "Measuring informal workplace learning outcomes in residency training: A validation study," *BMC Medical Education*, vol. 23, no. 1, p. 549, 2023. <https://doi.org/10.1186/s12909-023-04529-1>
- [51] J.-C. Hong, Y.-F. Lee, H.-H. Chen, and H. B. N. Nguyen, "Knowledge sharing types as predictors of job performance mediated by problem-solving self-efficacy in the information system integration service industry," *Frontiers in Psychology*, vol. 13, p. 857782, 2022. <https://doi.org/10.3389/fpsyg.2022.857782>
- [52] H. M. Pham, T. T. H. Le, L. H. Dang, and L. T. Nguyen, "The impact of reward system on talented employees' performance in Vietnamese commercial banks: mediating role of job satisfaction," *Journal of Financial Services Marketing*, vol. 29, no. 3, pp. 1099-1114, 2024. <https://doi.org/10.1057/s41264-023-00261-5>
- [53] N. Y. M. Fakhari and B. H. Din, "Influence of total quality management factors on the organizational performance and moderation of organizational support in Dubai police," *International Journal of Entrepreneurship*, vol. 25, pp. 1-16, 2021.
- [54] F. M. Al-Ameri, S. A. S. Alameri, M. F. Mahmood, and N. J. Mohammed, "The impact of strategic intelligence on organizational performance: A textile sector perspective of a developing economy," *Journal of Modern Project Management*, vol. 11, no. 3, pp. 12-21, 2023.
- [55] F. Samreen, S. Nagi, R. Naseem, and H. Gul, "COVID-19-Induced downsizing and survivors' syndrome: The moderating role of transformational leadership," *Frontiers in Psychology*, vol. 13, p. 833116, 2022. <https://doi.org/10.3389/fpsyg.2022.833116>
- [56] M. Mathibe and W. Chinyamurindi, "Determinants of employee mental health in the South African public service: The role of organizational citizenship behaviours and workplace social support," *Advances in Mental Health*, vol. 19, no. 3, pp. 306-316, 2021. <https://doi.org/10.1080/18387357.2021.1938153>
- [57] Y. Azad and A. Kumar, *Emotional Intelligence as a predictor of psychological wellbeing and workplace performance, AI and Emotional Intelligence for Modern Business Management*. India: IGI Global, 2023, pp. 77-97.
- [58] J. J. Dawes, J. Scott, E. F. Canetti, R. G. Lockie, B. Schram, and R. M. Orr, "Profiling the New Zealand police trainee physical competency test," *Frontiers in public health*, vol. 10, p. 821451, 2022. <https://doi.org/10.3389/fpubh.2022.821451>

- [59] X. Zhang, M. Wu, and J. Lu, "Differential leadership and innovation performance of new generation employees: the moderating effect of self-efficacy," *Current Psychology*, vol. 43, no. 23, pp. 20584–20598, 2024. <https://doi.org/10.1007/s12144-024-05847-3>
- [60] M. S. Mehmood, Z. Jian, and F. G. Gilal, "Entrepreneurial leadership and employee innovative behavior: Intervening role of creative self-efficacy," *Human Systems Management*, vol. 39, no. 3, pp. 367–379, 2020. <https://doi.org/10.3233/HSM-190783>
- [61] R. Alshareef, "Effect of Human Resource Management Practices on Mobilization Behavior Mediating Role of Procedural Justice," *International Science Letters*, vol. 12, no. 8, pp. 2877–2890, 2023.
- [62] S. Rana and S. Singh, "Performance appraisal justice and affective commitment: Examining the moderating role of age and gender," *International Journal of Organizational Analysis*, vol. 30, no. 1, pp. 24–46, 2022. <https://doi.org/10.1108/IJOA-04-2020-2124>
- [63] L. Hong and S. R. M. Zainal, "The role of mindfulness skill and inclusive leadership in job performance among secondary teachers in Hong Kong," *Journal of Asia Business Studies*, vol. 18, no. 3, pp. 609–636, 2024. <https://doi.org/10.1108/JABS-08-2023-0313>
- [64] M. Gorenak, J. R. Edelman, and B. Brumen, "The influence of organizational values on job satisfaction of employees," *Human Systems Management*, vol. 39, no. 3, pp. 329–343, 2020. <https://doi.org/10.3233/HSM-190781>
- [65] R. Lockie, J. J. Dawes, T. Sakura, B. Schram, and R. M. Orr, "Relationships between physical fitness assessment measures and a workplace task-specific physical assessment among police officers: A retrospective cohort study," *The Journal of Strength & Conditioning Research*, vol. 37, no. 3, pp. 678–683, 2023. <https://doi.org/10.1519/JSC.0000000000004301>
- [66] S. Ismail, A. Ramli, and S. Othman, "Managerial competency and business performance: Entrepreneurial orientation as a mediator in Malaysian SMEs," *Jurnal Pengurusan*, vol. 66, pp. 151–162, 2022.
- [67] N. Langove, M. U. Javaid, R. K. Ayyasamy, A. K. Ibikunle, and A. A. Sabir, "Job stressors and turnover intention of IT executives in Malaysia: The mediating role of employee well-being," *Work*, vol. 77, no. 1, pp. 295–305, 2024. <https://doi.org/10.3233/WOR-230103>
- [68] Q. Zhang, *Applications research of deep learning in the skill enhancement of Taekwondo athletes*, in *Smart innovation, systems and technologies*, J. L.C., K. R., N. K., and P. S., Eds., *Tianjin University of Technology and Education*, Tianjin, 300000. China: Springer Science and Business Media Deutschland GmbH, 2025.
- [69] G. Xu, M. Xue, and J. Zhao, "The association between artificial intelligence awareness and employee depression: The mediating role of emotional exhaustion and the moderating role of perceived organizational support," *International Journal of Environmental Research and Public Health*, vol. 20, no. 6, p. 5147, 2023. <https://doi.org/10.3390/ijerph20065147>
- [70] Z. Hassan, "Employee retention through effective human resource management practices in Maldives: Mediation effects of compensation and rewards system," *Journal of Entrepreneurship, Management and Innovation*, vol. 18, no. 2, pp. 137–174, 2022. <https://doi.org/10.7341/20221825>
- [71] J. L. E. Aguilar, A. J. F. Ocaña, and L. L. Méndez-Gutiérrez, "Stress and job performance in the public sector in the world. A systematic review of the literature from 2021–2024," in *Proceedings of the LACCEI international Multi-conference for Engineering, Education and Technology*, L. P. M.M., T. J., and M. R.A.R., Eds., *Universidad Privada del Norte, Peru: Latin American and Caribbean Consortium of Engineering Institutions*, 2024.
- [72] A. Sohal and D. Sharma, "Exploring workplace mental health among Indian employees: A systematic literature review and future research agenda," *Social Sciences & Humanities Open*, vol. 11, p. 101290, 2025. <https://doi.org/10.1016/j.ssaho.2025.101290>
- [73] S. Rawat, A. P. Deshpande, O. Boe, and A. Piotrowski, "Understanding Leadership Effectiveness in the wake of challenges: a leadership competency model," *HUMAN REVIEW. International Humanities Review/Revista Internacional de Humanidades*, vol. 16, no. 1, pp. 171–187, 2023. <https://doi.org/10.37819/humanrev.v16i1.1468>
- [74] A. M. Snyman, "Predictors of staff retention satisfaction: The role of the psychological contract and job satisfaction," *Journal of Psychology in Africa*, vol. 32, no. 5, pp. 459–465, 2022. <https://doi.org/10.1080/14330237.2022.2121047>
- [75] M. Rozkwitalska-Welenc, B. A. Basinska, and A. Dettlaff, *Informal workplace learning and employee development: Growing in the organizational new normal*. Gdansk, Poland: WSB Merito University, Taylor and Francis, 2024.
- [76] A. Neher, J. Maley, L. Wuersch, and B. Krivokapic-Skoko, "Improving employee acceptability of performance management across borders: A reciprocity perspective," *European Management Review*, vol. 21, no. 4, pp. 871–886, 2024. <https://doi.org/10.1111/emre.12639>
- [77] M. A. Jabber, M. N. Sakib, and M. M. Rahman, "Exploring the roles and challenges of the servant leadership: A critical examination of the Bangladesh police," *Heliyon*, vol. 9, no. 1, p. e12782, 2023. <https://doi.org/10.1016/j.heliyon.2022.e12782>
- [78] A. Piotrowski, S. Rawat, and O. Boe, "Effects of organizational support and organizational justice on police officers' work engagement," *Frontiers in Psychology*, vol. 12, p. 642155, 2021. <https://doi.org/10.3389/fpsyg.2021.642155>
- [79] G. E. Roberts, *The role and value of servant leadership in improving performance appraisal practices*, in *The Palgrave Handbook of Servant Leadership*, Robertson School of Government, Regent University. Virginia Beach, VA, United States: Springer International Publishing, 2023.

- [80] H. Liu, C. Guo, and Z. Han, "Associations between public service motivation, depression and anxiety among firefighters: A chain mediation model of employee resilience and job satisfaction," *Journal of Homeland Security and Emergency Management*, vol. 21, no. 3, pp. 417–440, 2024. <https://doi.org/10.1515/jhsem-2023-0002>
- [81] D. M. Malesa and M. J. Maleka, *Training experts' perceptions of the relationship between performance management, training needs analysis and training intervention at the state-owned enterprise in Limpopo Province, South Africa*, in *Managing Human Resources in Africa: A Critical Approach*, Tshwane University of Technology, Tshwane Business School and Society. Pretoria, South Africa: Springer Nature, 2023.
- [82] M. Zito *et al.*, "Does the end justify the means? The role of organizational communication among work-from-home employees during the COVID-19 pandemic," *International Journal of Environmental Research and Public Health*, vol. 18, no. 8, p. 3933, 2021. <https://doi.org/10.3390/ijerph18083933>
- [83] S. Riyanto, U. T. Handiman, M. Gultom, A. Gunawan, J. M. Putra, and H. Budiyo, "Increasing job satisfaction, organizational commitment and the requirement for competence and training," *Emerging Science Journal*, vol. 7, no. 2, pp. 520–537, 2023. <https://doi.org/10.28991/ESJ-2023-07-02-016>
- [84] E. Shava and N. Ndebele, *Digital transformation in public sector human resource management*. South Africa: University of KwaZulu Natal, IGI Global, 2024.
- [85] Z. I. Paul, K. Rathore, and M. A. Sial, "Linking workforce diversity and contextual performance: The mediating role of interpersonal conflict and moderating role of supportive leadership," *Pakistan Journal of Commerce and Social Sciences*, vol. 17, no. 1, pp. 66–91, 2023.
- [86] M. Koedijk, P. G. Renden, R. R. Oudejans, L. Kleygrewe, and R. V. Hutter, "Observational behavior assessment for psychological competencies in police officers: A proposed methodology for instrument development," *Frontiers in Psychology*, vol. 12, p. 589258, 2021. <https://doi.org/10.3389/fpsyg.2021.589258>
- [87] A. M. Al Ramahi, A. Davies, and F. Al Kaabi, "Measuring the impact of intellectual capital performance management indicators through the lens of organizational capital: A police agency case study," *Policing: A Journal of Policy and Practice*, vol. 17, p. paad050, 2023. <https://doi.org/10.1093/polic/paad050>
- [88] S. Zhou, N. Yi, R. Rasiyah, H. Zhao, and Z. Mo, "An empirical study on the dark side of service employees' AI awareness: Behavioral responses, emotional mechanisms, and mitigating factors," *Journal of Retailing and Consumer Services*, vol. 79, p. 103869, 2024. <https://doi.org/10.1016/j.jretconser.2024.103869>
- [89] T. T. P. Pham, G. Q. Truong, T. Van Nguyen, and P. V. Nguyen, "The meaning of public service motivation: Human resource management practices in the public sector," *Review of Integrative Business and Economics Research*, vol. 12, no. 2, pp. 1–27, 2023.
- [90] S. Majidi, A. Daneshkohan, E. Zarei, and T. Ashktorab, "Perspectives of health workers on annual performance appraisal: A study in primary health care," *International Journal of Healthcare Management*, vol. 14, no. 4, pp. 1190–1197, 2021. <https://doi.org/10.1080/20479700.2020.1755810>
- [91] T. J. Arentsen, M. Clements, A. M. Meier, L. Pannell, and K. M. Putman, "Multisource evaluation of policing competence: The development of self-and supervisor-rating scales for police recruits," *Police Practice and Research*, vol. 22, no. 3, pp. 1277–1293, 2021. <https://doi.org/10.1080/15614263.2020.1869003>
- [92] H. Shava and W. T. Chinyamurindi, "The moderating role of career adaptability on the relationship between workplace spirituality and employee mental and physical health," *SA Journal of Human Resource Management*, vol. 19, p. a1437, 2021. <https://doi.org/10.4102/sajhrm.v19i0.1437>
- [93] J. Zhao, M. Karimzadeh, L. S. Snyder, C. Surakitbanharn, Z. C. Qian, and D. S. Ebert, "Metricsvis: A visual analytics system for evaluating employee performance in public safety agencies," *IEEE Transactions on Visualization and Computer Graphics*, vol. 26, no. 1, pp. 1193–1203, 2019.
- [94] M. Gerber *et al.*, "Psychophysiological foundations of human physical activity behavior and motivation: Theories, systems, mechanisms, evolution, and genetics," *Physiological Reviews*, vol. 105, no. 3, pp. 1213–1290, 2025. <https://doi.org/10.1152/physrev.00021.2024>
- [95] M. S. S. Bahri, S. S. R. Shariff, N. S. I. Zolkefley, S. S. R. Shariff, and N. Yahya, "A tri-level AHP approach for port logistics personnel performance evaluation," in *Proceedings of the International Conference on Industrial Engineering and Operations Management, Malaysia Institute of Transport (MITRANS) Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia: IEOM Society*, 2021, pp. 2209–2220.
- [96] H.-N. Chu and C.-M. Zhang, "Research on performance appraisal method of grass roots staff in the perspective of complex big data," in *2020 IEEE International Conference on Industrial Application of Artificial Intelligence, LAAI 2020, School of Labor Relations and Human Resource, China University of Labor Relations, Beijing, China: Institute of Electrical and Electronics Engineers Inc*, 2020, pp. 497–502.
- [97] K. Cui, "Role of psychological disorder and depression in job performance based on the teacher-apprentice system," *Revista de psicología del deporte*, vol. 29, no. 4, pp. 232–242, 2020.
- [98] Y. Liu, Y. Li, L. Hu, and Q. Zhang, "How does artificial intelligence usage affect the safety behavior of bus drivers? A double-edged sword study," *Transportation Research Part F: Traffic Psychology and Behaviour*, vol. 111, pp. 32–44, 2025. <https://doi.org/10.1016/j.trf.2025.02.026>

- [99] M. Sloan and M. Geldenhuys, "Regulating emotions at work: The role of emotional intelligence in the process of conflict, job crafting and performance," *SA Journal of Industrial Psychology*, vol. 47, no. 1, pp. 1-14, 2021. <https://doi.org/10.4102/sajip.v47i0.1875>
- [100] H.-W. Lee, "A career stage analysis of the US federal employees' job satisfaction and turnover intention: A comprehensive overview," *Review of Public Personnel Administration*, vol. 40, no. 4, pp. 717-742, 2020. <https://doi.org/10.1177/0734371X19856082>
- [101] M. Aboramadan, K. Dahleez, and M. H. Hamad, "Servant leadership and academics outcomes in higher education: the role of job satisfaction," *International Journal of Organizational Analysis*, vol. 29, no. 3, pp. 562-584, 2021. <https://doi.org/10.1108/IJOA-11-2019-1923>
- [102] G. Den Heyer, *Police leadership and management*. Cham, Switzerland: Springer International Publishing, 2021.
- [103] M. Nishimura, *The management of human resources in Japan's public service*, in *Governance and Public Management, Part F3397, Faculty of Law, Department of Political Science, Seikei University*. Musashino, Japan: Palgrave Macmillan, 2024.
- [104] W. Purbiyantari, S. Zauhar, R. Hermawan, and B. S. Riyadi, "Transformational leadership, technology adoption, and public service towards job competency," *International Journal of Membrane Science and Technology*, vol. 10, no. 2, pp. 835-845, 2023. <https://doi.org/10.15379/ijmst.v10i2.1389>
- [105] A. Sonta, "Ethical culture strengthening model at resort police as part of police reform: A bourdieu's habitus based approach," *Kasetsart Journal of Social Sciences*, vol. 41, no. 2, pp. 377-381, 2020.
- [106] H. S. Bonner, "The decision process: police officers' search for information in dispute encounters," *Policing and Society*, vol. 28, no. 1, pp. 90-113, 2018. <https://doi.org/10.1080/10439463.2016.1147040>
- [107] N. Todak and L. J. Somers, "A tutorial on mixed methods research for policing scholars," *The Police Journal*, vol. 98, no. 2, pp. 426-441, 2024. <https://doi.org/10.1177/0032258X241299749>
- [108] N. Aydin, S. Seker, M. Deveci, and B. B. Zaidan, "Post-earthquake debris waste management with interpretive-structural-modeling and decision-making-trial, and evaluation-laboratory under neutrosophic fuzzy sets," *Engineering Applications of Artificial Intelligence*, vol. 138, p. 109251, 2024. <https://doi.org/10.1016/j.engappai.2024.109251>
- [109] R. Renner, V. Cvetković, and N. Lieftenegger, "Dealing with high-risk police activities and enhancing safety and resilience: Qualitative Insights into Austrian police operations from a risk perception and group dynamic perspective," *Preprints of Preprints*, 2025. <https://doi.org/10.20944/preprints202502.1967.v1>
- [110] N. Wilkes, V. R. Anderson, C. L. Johnson, and L. M. Bedell, "Mixed methods research in criminology and criminal justice: A systematic review," *American Journal of Criminal Justice*, vol. 47, no. 3, pp. 526-546, 2022. <https://doi.org/10.1007/s12103-020-09593-7>
- [111] L. Mofokeng, M. Zitha, M. P. Aphane, and J. T. Mofokeng, "Factors influencing, contributing and curtailing training effectiveness in the South African Police Service: Evidence from a strategic perspective," *OIDA International Journal of Sustainable Development*, vol. 16, no. 07, pp. 51-70, 2023.
- [112] A. Afandi, I. Bafadal, S. Hadi, and A. Taufiq, "Investigating School principals' learning leadership practices in three indonesian excellent schools," *Eurasian Journal of Educational Research*, vol. 96, pp. 119-135, 2021.
- [113] P. Loga and A. Chand, "Performance appraisal systems and public sector efficiency in small island developing states: The case of Fiji," *Personnel Review*, vol. 49, no. 4, pp. 974-992, 2020. <https://doi.org/10.1108/PR-01-2018-0013>
- [114] W. Hendriks, M. Kuiper, and N. van Gestel, "Engaging professionals in the strategic renewal of public services: A literature review and research agenda," *Public Policy and Administration*, vol. 39, no. 1, pp. 27-50, 2024. <https://doi.org/10.1177/09520767221094446>
- [115] N. Wallstedt, "Client focus, cooperation, and coherence: (Re)professionalising Processes for elderly care," *Financial Accountability & Management*, vol. 33, no. 1, pp. 3-26, 2017. <https://doi.org/10.1111/faam.12103>
- [116] C. Koliba and J. Koppenjan, *Managing 'wicked problems' through complex adaptive governance networks*, *Public Management and Governance*. United States: Routledge, 2023, pp. 232-244.
- [117] J. N. S. Morales, J. Rivera-Zamudio, L. Fernández-Collazos, and L. A. Núñez-Lira, "Generating leaders for curriculum management in times of pandemic," *International Journal of Early Childhood Special Education*, vol. 13, no. 2, pp. 468-479, 2021.
- [118] A. N. Stamate, L. Brunet, and A. Savoie, "Does professional competence predict psychological health in teachers?," *Le Travail Humain*, vol. 78, no. 4, pp. 355-378, 2015. <https://doi.org/10.3917/th.784.0355>
- [119] R. Kapoor, V. Kamra, and P. Khurana, "Impact of Emotional Well-being on Job Performance: A Study Based on Service Sector Professionals," *International Journal of Experimental Research and Review*, vol. 44, pp. 173-184, 2024. <https://doi.org/10.52756/ijerr.2024.v44spl.015>
- [120] A. L. Olsen, L. Tummers, S. Grimmelikhuijsen, and S. Jilke, *Behavioral public administration: Connecting psychology with european public administration research*, in *The Palgrave Handbook of Public Administration and Management in Europe, Department of Political Science, University of Copenhagen, Copenhagen*. Denmark: Palgrave Macmillan, 2017.
- [121] G. F. Bauer and G. J. Jenny, *From fidelity to figuration: Current and emerging approaches to organizational health intervention research*, in *Salutogenic Organizations and Change: The Concepts Behind Organizational Health Intervention Research, Division of Public and Organizational Health, Institute of Social and Preventive Medicine, University of Zürich, Hirschengraben 84, Zürich, 8001*. Switzerland: Springer Netherlands, 2013.

- [122] Q. N. Hong *et al.*, "The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers," *Education for Information*, vol. 34, no. 4, pp. 285-291, 2018. <https://doi.org/10.3233/EFI-180221>
- [123] E. Del Sordo and A. Zattoni, "The role of employee ownership, financial participation, and decision-making in corporate governance: A multilevel review and research Agenda," *Corporate Governance: An International Review*, vol. 33, no. 3, pp. 529-549, 2025. <https://doi.org/10.1111/corg.12614>
- [124] D. A. S. Samarasinghe, I. S. Piri, and O. Das, "Navigating the shift: Assessing the online learning experience and effectiveness for construction students during the COVID-19 Pandemic in New Zealand," *New Zealand Journal of Educational Studies*, pp. 1-18, 2025.
- [125] L. Le Dé, S. Ronoh, E. M. T. Kyu, and B. Rive, "How can practitioners support citizen volunteers in disaster risk reduction? Insight from "Good and Ready" in Aotearoa New Zealand," *International Journal of Disaster Risk Science*, vol. 15, no. 3, pp. 374-387, 2024. <https://doi.org/10.1007/s13753-024-00563-9>