

## **KNOWLEDGE MANAGEMENT AND EMPLOYEE PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW**

**Sinaga Samuel Partogi Hasudungan\*, Maulina Erna, Tresna Pratami Wulan,  
Sukoco Iwan, Purnomo Margo, Kostini Nenden**

Department of Business Administration, University of Padjajaran, Bandung, Indonesia

\*E-mail: [samuel17005@mail.unpad.ac.id](mailto:samuel17005@mail.unpad.ac.id)

ORCID: 0000-0003-0298-5563

### **ABSTRACT**

Systematic literature review in knowledge management and employee performance, in general, has been rapidly performed during the last decade. However, this study discusses knowledge management and employee performance with the aim of this research to research the literature and discussion of articles. The purpose of this study is to review the literature and review the articles related to the effect of knowledge management on employee performance. This study intend to provide comprehensive information on the trends, methodologies, the knowledge management practices and the applications used to knowledge management about improving employee performance. A systematic literature review was conducted, and three screenings were performed to refine the articles. Articles were extracted only from Scopus. A total of 34 articles were considered to meet the selection criteria was reviewed, analyzed, and important information was extracted. The data were processed by using bibliometric tool in VOSviewer and Microsoft Excel. The results of this systematic review give some key learning of the trends on the used to knowledge management about improving employee performance in the last decade and also provide a background for future research related to the fields.

### **KEY WORDS**

Knowledge, management, employee, performance, systematic literature review.

It is now recognized that knowledge plays a dominant role in our everyday lives and in the business world. Information has consistently been significant for humankind and its evolution, as well as for organizational management. The era of knowledge plays an essential role in the economic growth and development of all enterprises (Foray, 2004; Mosconi & Roy, 2013). With the arrival of globalization, knowledge has become an intangible resource generator of permanent competitive advantage (Ikujiro & Hiroshi, 2013; Tunc Bozbura, 2007). Knowledge plays a central role in the differential competitive advantage of organizations and knowledge management (KM) helps them to deal with changes in the business environment (Hansen et al., 1999).

Organizations need to use knowledge in order to improve their performance and to ensure long term viability in the current business environment (Malhotra, 2001). Employee performance suggests employee productivity and efficiency as a result of employee growth (Khan & Jabbar, 2013). Sinha (2001) defined employee performance as depending on the willingness and the openness of the employee to do the job. According to Chien (2015), a successful organization requires employees who are willing to do more than their usual job scope and contribute performance that exceed goal's expectations. In order to produce a good performance today knowledge is trusted as a valuable asset to improve performance, especially employee performance.

Many studies have examined the use of knowledge management in supporting related business world. Knowledge managements have now become a mainstream priority for companies of all sizes. According to the Gartner Group (2007), approximately 80% of KM initiatives have not met all their objectives. Pointed out the importance of literature review to prevent the failure or inefficiency of knowledge management practices, thus, we

systematically analyze the literature on KM on the employee performance, by addressing the following research.

## MATERIALS AND METHODS OF RESEARCH

The systematic review of the literature in this study is related to knowledge management on employee performance. Systematic literature review is good for locating, selecting, analyzing, appraising and evaluating the literature that is relevant to a particular research question (Denyer & Tranfield, 2009). The preparation of the systematic literature review is carried out based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach (Liberati et al. 2009). For this reason, the literature used in this study was taken from several major and respected publishing only from indexed database in Scopus; this is due to an effort to gather high-quality paper related to decision support system in the supply chain. Literature data from 2009-2020 was used in the study, which was obtained by the following keywords: Knowledge Management and Employee Performance.

This study aims to systematically determine the effect of KM on employee performance. For this reason, a systematic review of the articles that investigate the two topics was conducted keywords: Knowledge Management AND Employee Performance. Databases were used to select the articles is only from Scopus to find the related articles. These databases were selected because Scopus produce only peer-reviewed and reliable articles. Database shows total of 68 articles were identified from various journals and publishers. Criteria in selecting articles include articles must be in English; full text is available in accordance with systematic review and research question topics in this study; and is limited to pre-determined journals and databases in this case it was agreed from Scopus.

Three screening were conducted to refine the articles. The first screening was to eliminate duplicate articles and found the relevance articles as much as 10 until resulted that the remaining articles were 58. Furthermore In the second screening, from the remaining number of articles, we have filtered in term of titles and abstracts based on the suitability of articles with the topic on this systematic review. This has resulted in removing 5 articles and obtained 53 articles. The third screening included a full reading, In this screening has resulted in removing 19 articles and 34 articles were found to be useful in the systematic review in this study.

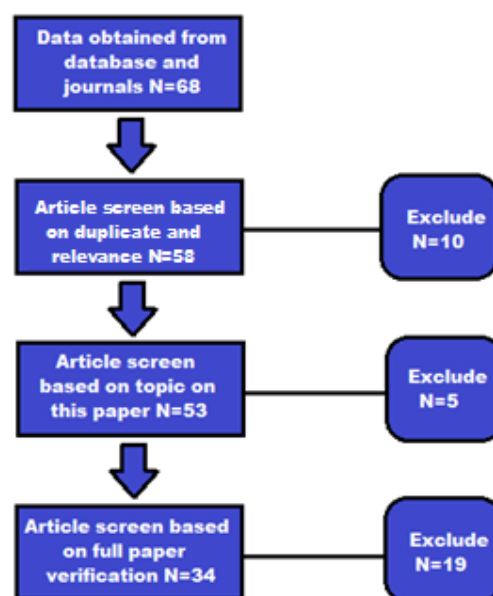


Figure 1 – Data selection process

A total of 34 articles were reviewed in this study. Sudha (2020) investigated the necessitated sharing of knowledge aided by technology and also by re-engineering their system and knowledge drain. Kalashi et al. (2020) studied were to examine the effect of the application of Information and communication technology (ICT) skills on the process of knowledge management components and the effectiveness of creativity indicators for the improvement of employees' performance system. Poleacovschi and Javernick-Will (2020) investigated the importance of knowledge sharing and analyzed the importance of expertise visibility on employee performance. Naseri, Saberi, and Taheri (2019) investigated the effect of using use of fingerprint attendance systems.

Purnamasari, Hermadi, and Nurhadryani (2019) Found that Document Standard Operating Procedures (SOP) can manage a good business processes and employee performance in an organization. Nicolaescu et al. (2019) this work introduced an original methodology for evaluating the performance of employees. Sardjon and Novian (2018) investigated the three principal elements of KMS (Personal knowledge, job procedure and technology literacy) has a positive effect on the performance of employees.

Akram and Hilman (2018) investigated the effect of knowledge management activities and dynamic capabilities on employee performance in the banking sector. Sahana and Menon (2018) investigated a positive correlation between the knowledge management and employee performance. Ahmad, Malik, and Anwar (2018) aimed at examining the impact of knowledge management on employee performance. Abualoush et al. (2018) investigated the interrelationships among knowledge management (KM), information systems (IS) and employees' empowerment (EE) on employees' performance (EP). Ferdiansyah and Suroso (2017) this research is to find out what factors affect the employee performance problem based on Knowledge Management System (KMS).

Nana and Abdul (2017) aimed at finding out how knowledge management, employee's competence and employee's performance. Mahmudi and Monavvar (2016) analyzed the effect of knowledge management on performance improvement of the employees. Shahraki and Keshtegar (2016) aimed the relationship between knowledge management process and performance of employees. Simamora (2015) aimed to determine the application and use of the Request Tracker application as a KMS in handling Customer Request (CR) based on people, process and technology factors, and its influence on employee performance. Hussain et al. (2015) investigated the critical role that knowledge sharing enablers play in putting into practice knowledge management within schools' and impacting schools' performance.

Park, Dulambazar, and Rho (2015) investigated knowledge sharing role between organizational social factors and performance. Barrett (2015) investigates need for change in the form of the performance appraisal evaluation process in order to specifically focus on the human capital's contributions to their respective organization's knowledge management efforts. Danescu, and Sandru (2015) pointed out the importance of the employees that are defined as human capital and also to develop an evaluation method of human capital. Hahn, Lee, and Lee, (2015) this study were examine how to maximize employee performance in today's increasingly competitive environment, companies must enhance individual creativity through the effective management of organizational network structures and learning cultures Alhanshi, and Albraiki (2015) investigated that good systems and environment for knowledge sharing will have positive effect on the learning curve of both individual and organization. Shamshiri et al. (2014) Investigated the use of knowledge management is considered as a strategic and important asset.

Galunic, Sengupta, and Petriglieri (2014) investigated the impact of KM use on the career progress of service professionals. Mehairi and Binning (2014) examine how organizational culture moderates knowledge sharing behaviour. Martins, Martins, and Xiao (2014) aimed to demonstrate that there is a link between soft skills and organizational performance in the knowledge economy. Mura and Longo (2013) aimed to develop a model for assessing and valuing the intellectual capital of an organization by gathering data from individual employees. Soury et al. (2013) aimed to study the relation of evaluation criteria with implementation of knowledge management.

Kane, Ransbotham, and Boynton (2012) investigated the peer effects of worker productivity among knowledge workers who interact through digital communication channels. Raisiene (2012) defined the importance of formal and informal electronic communication to employees' activity and organization efficiency applying the method of meta-analysis Chang et al. (2011) investigated the cognition of knowledge management (KM) among hospital employees and the relationship between KM and the KM enabler activities (financial, customer, internal business processes, learning and growth). Al-Raisi, Amin, and Tahir (2011) investigated the impact of e-PMS Electronics Performance Management Systems in the organizational. Yu and Shi (2010) are determined the weight of performance index. Then to establish performance appraisal to evaluate knowledge employees' performance Jianping (2009) aimed game theory analysis of the relevant knowledge proof of knowledge workers to maintain performance standards for the necessity of dynamic consistency, and performance evaluation of maintaining dynamic consistency recommendations

## RESULTS AND DISCUSSION

Table 1, presents a profile of the reviewed studies. It shows all the articles come from Scopus. 34 articles used in this study came from journals and proceedings, which the finding also obtained that various fields indicate research interest in knowledge management and employee performance. the findings also show that 10 out of 34 articles comes from conference proceedings, which means 29 percent came from conference proceedings and 71 percent from journals, but all article extracted only from Scopus indexed database (Figure 2).

Table 1 – Profile of articles

Advances in Environmental Biology	2
International Journal of Advanced Science and Technology	1
World Journal on Educational Technology: Current Issues	1
Engineering Management Journal	1
Telkomnika	1
Future Generation Computer Systems	1
Studies in Business and Economics	1
International Journal of Mechanical Engineering and Technology	1
Journal of Social Sciences	1
VINE Journal of Information and Knowledge Management Systems	1
Journal of Engineering and Applied Sciences	1
IIOAB Journal	1
Social Sciences	1
Journal of Theoretical and Applied Information Technology	1
Journal of Information and Knowledge Management	1
Information Development	1
Computers in Human Behavior	1
European Management Journal	1
International Journal of Sustainability in Economic, Social, and Cultural Context	1
Expert Systems	1
Transformations in Business and Economics	1
International Journal of Health Care Quality Assurance	1
International Journal of Web Portals	1
Conference Proceedings	10

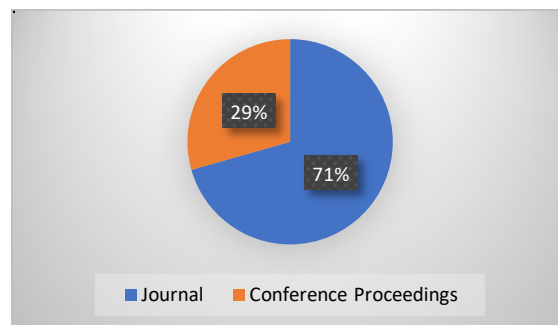


Figure 2 – Comparison journal and conference proceedings



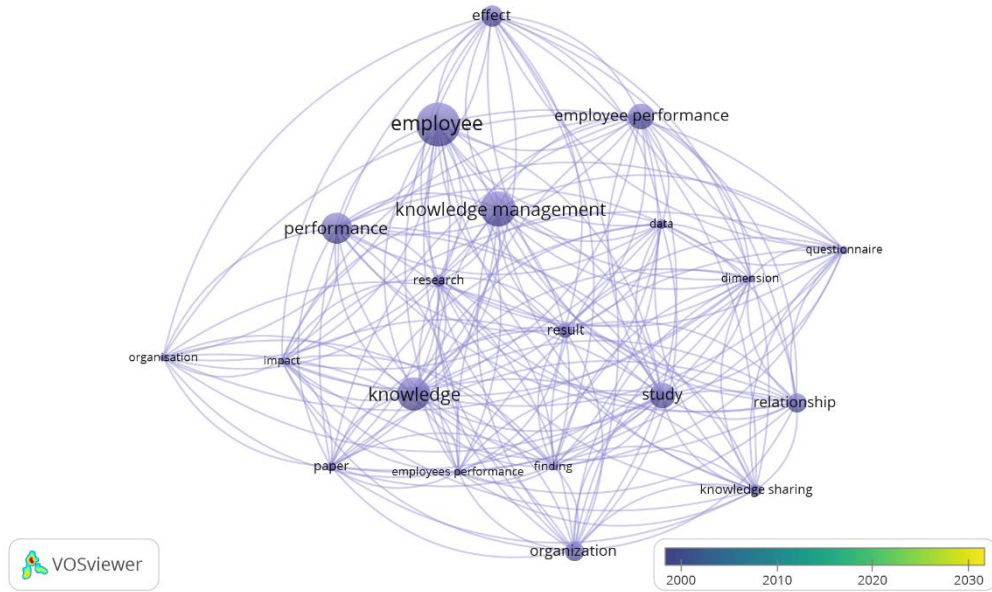


Figure 5 – Yearly publication main topics

Fig. 6 shows the country of origin of the studies. A total of 15% of articles investigated the effect of KM on organizational performance in Iran and Indonesia; both were counted with 5 articles found. Followed by 9% in United Arab Emirates, Pakistan, China, and America counted with 3 articles found. Romania and India were found with 2 articles and only one article found from Taiwan, South Korea, Mongolia, Lithuania, Jordan, Italy, France, and Azerbaijan.

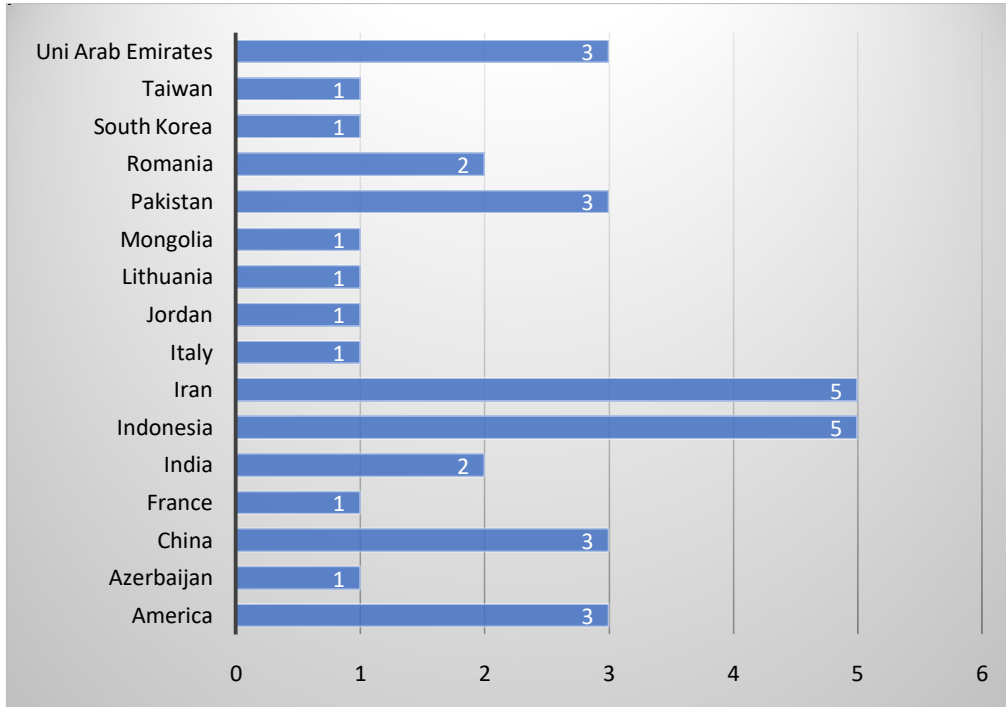


Figure 6 – Yearly publication main topics

Meta-analysis study indicated that the majority of articles in peer reviewed journals on KM comes from USA, the UK, Canada, Germany, Australia, and Spain (Serenko, 2013). Alaarj et al. (2016) noted that most of KM studies were conducted in developed countries and in Taiwan. In these studies it was discovered that articles from Indonesia and Iran have

overwhelmed different articles from Taiwan or developed countries. This could be because of the extent of this investigation where the emphasis was on the impact of KM on employee performance.

The results of the study show that the industry that have been investigated in the reviewed articles is in the IT Companies and Government (15%) both were counted with 5 articles found, which includes companies engaged in various IT sectors and those engaged in the public sector. The industrial sector and education is also found (9%) both were counted with 3 articles found. Another sector engaged in the social organization, retail, and also mining and mineral found (6%) with only 2 articles found. Furthermore, the results of this study also found that the following industries such as; Banking, Telecommunication, Pharmaceutical, Logistic, Consulting, Health, Food and Beverage, and also Finance found (3%) with only 1 article. After all there is also found 4 articles as undefined industry.

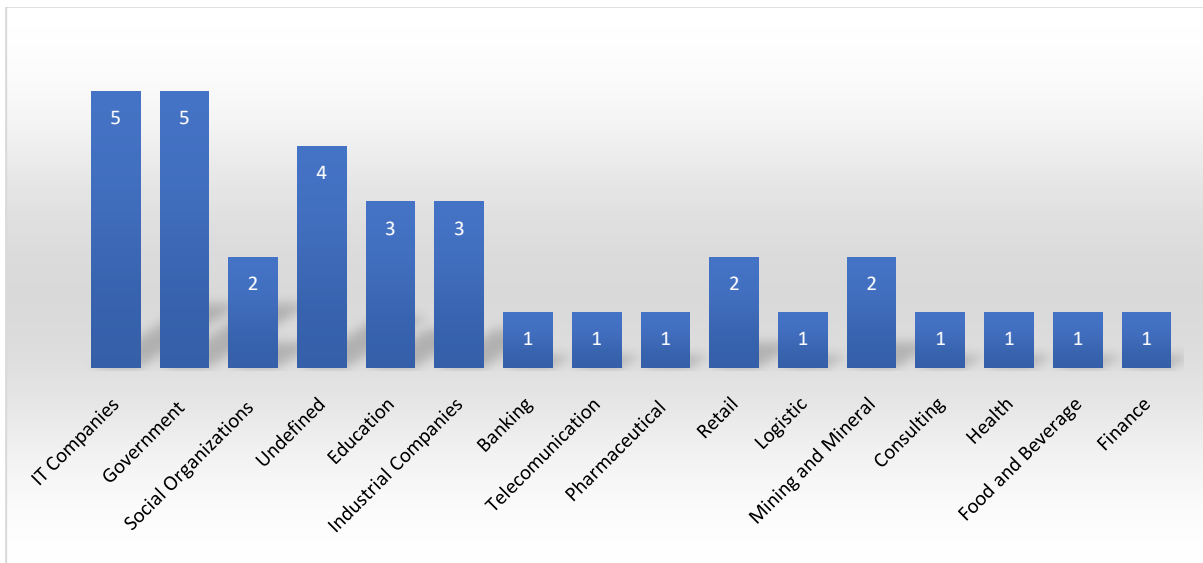


Figure 7 – Industry cover by KM in employee performance

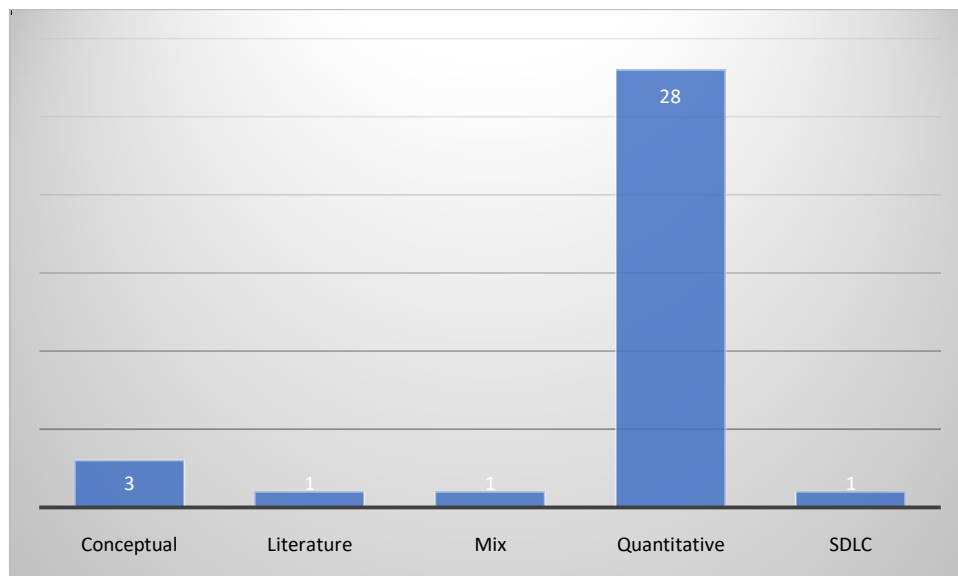


Figure 8 – Method of the Reviewed Studies

Knowledge management (KM) is generally defined as the acquisition, storage, retrieval, implementation, generation and review of an organization's knowledge assets in a controlled manner (Pathirage et al., 2008). As stated by Pathirage et al. (2008) KM is defined

as a knowledge asset for organization in accordance with what was found in 34 articles. The findings indicated that all the articles were extracted from various organization and industries agreed Knowledge is valuable asset.

Fig. 8 presents the approach of the reviewed articles. It shows that 82% of the articles are quantitative, followed by 9% are conceptual articles, 3% have used mix method, and 3% used SDLC method, while only 3% are literature review articles.

## **CONCLUSION**

This research was conducted using a systematic literature review to answering there search questions in the form of “what is the effect of knowledge management (KM) on employee performance?” This study reviewed the literature to present the state of the art in the field of KM and employee performance. A systematic review was conducted and a total of 34 articles were reviewed, analyzed and important information was extracted. The findings indicated that all the articles were extracted from Scopus and Web of Science with the majority were published between 2009 and 2020. Most of the articles investigated the issue of KM and employee performance in Indonesia and Iran then followed by China, America, Pakistan, and Uni Arab Emirates. Followed with the majority of the studies are quantitative researches.

The findings of this study are restricted to the checked on articles. Because of the selection criteria of the articles, just 34 articles were reviewed. The findings also are limited to the scope of this study because it focuses on KM and employee performance. As a path forward, future studies prescribed to expand the scope of this study so that the findings can be progressively generalizable. Future research is recommended to investigate systematically the literature by including other indices such as to focus only on other articles published by Emerald or Science Direct or in specific journal such as the Journal of Knowledge Management. Future studies are recommended to investigate empirically the effect of KM on employee performance and other outcomes such as competitiveness, innovation, and new product development especially in emerging market. More studies are need in government sector and public sector usage of KM to improve the employee performance. Similarly, more studies are needed in IT Companies, Government, Education, Industrial, Banking and also the public sector usage and implementation of KM and employee performance.

Future studies are prescribed to examine the KM utilizing strategies, for example, mix methods or qualitative studies. Literature review studies are recommended also to decide the heading for future works. It is recommended that the sample size in most studies consist of at least 100 in order to fulfill the practical role of using AMOS or PLS. Future research is recommended to expand the sample size and use techniques such as Structural Equation Modeling (SEM). Using AMOS or PLS should depend on the nature of the conducted studies. For this reason, PLS is suggested in explorative nature studies while AMOS for confirmatory studies.

## **REFERENCES**

1. Hansen, M. T., Nohria, N., & Tierney, T. (1999). What's your strategy for managing knowledge? *Harvard Business Review*, 106–116.
2. Sinha, A., & Chandrakasan, A. (2001). Dynamic Power Management in Wireless Sensor Networks. *IEEE Design & Test of Computers*, 18(2), 62-74.
3. Chien, M.H. (2015). An Investigation of the Relationship of Organizational Structure, Employees' Personality and Organizational Citizenship Behaviors. *Journal of American Of Business*.5 (2), 428-431.
4. Khan, M.M., Jabbar, M. (2013). Determinants of Employees Performance in Corporate Sector: Case of an Emerging Market. *Business and Management Research*, 2(3), 25-32.
5. Tunc Bozbura, F. (2007). Knowledge management practices in Turkish SMEs. *Journal of Enterprise Information Management*, 20, 209-221.



6. Ikujiro, N., & Hiroshi, Y. (2013). Eastern and western knowledge creating dialectical dynamism. *Journal of the Japanese Society for Artificial Intelligence*, 28, 465-467.
7. Foray, D. (2004). *Economics of knowledge*. Cambridge, MA: MIT Press.
8. Mosconi, E., & Roy, M. C. (2013). Making links between knowledge management and organizational performance. *International Business Research*, 6. doi:10.5539/ibr.v6n9p68
9. Malhotra, Y. (2001). *Knowledge Management and Business Model Innovation*. Hershey.
10. Gartner, G. (2007). In Mann, Jeffrey, Stanford, Recherche (Eds.), *Why Knowledge Management Is No Longer on the Gartner Hype Cycles*. G00151237.
11. Mum W.Y. (2012). *Employee Participation: Success Factor of Knowledge Management*.
12. Bader Alyoubi, Md. Rakibul Hoque, Ibraheem Alharbi, Adel Alyoubi (2018). Impact of Knowledge Management on Employee Work Performance: Evidence from Saudi Arabia
13. Serenko, A. (2013). Meta-analysis of scientometric research of knowledge management: discovering the identity of the discipline. *Journal of Knowledge Management*, 17(5), 773–812. <https://doi.org/10.1108/JKM-05-2013-0166>
14. Pathirage, C., Haigh, R., Amaratunga, D. (2008). Knowledge management practices in facilities organisations: a case study. *Journal of Facilities Management*, 6(1), 5-22.
15. Sudha, B. Knowledge management-an enabler for active ergonomics for improved employee performance in IT sector (2020) *International Journal of Advanced Science and Technology*, 29 (4 Special Issue), pp. 1034-1041.
16. Asbari, M., Bernarto, I., Pramono, R., Purwanto, A., Hidayat, D., Sopa, A., Alamsyah, V.U., Senjaya, P., Fayzhall, M., Mustofa The effect of work-family conflict on job satisfaction and performance: A study of Indonesian female employees (2020) *International Journal of Advanced Science and Technology*, 29 (3), pp. 6724-6748
17. Poleacovschi, C., Javernick-Will, A. The Importance of Expertise Visibility Across Organizational Boundaries for Individual Performance (2020) *EMJ - Engineering Management Journal*, 32 (1), pp. 37-45
18. Naseri, S., Saberi, S., Taheri, S.H. The Role of Knowledge Management in Improving the Staff Performance of a Set (2019) *Proceedings of 2019 15th Iran International Industrial Engineering Conference, IIIEC 2019*, art. no. 8720619, pp. 289-292.
19. Purnamasari, I., Hermadi, I., Nurhadryani, Y. Knowledge management system SOP using semantic networks connected with personnel information system: Case study Universitas Singaperbangsa Karawang (2019) *Telkomnika (Telecommunication Computing Electronics and Control)*, 17 (1), pp. 179-186
20. Nicolaescu, S.S., Florea, A., Kifor, C.V., Fiore, U., Cocan, N., Receu, I., Zanetti, P. Human capital evaluation in knowledge-based organizations based on big data analytics (2019) *Future Generation Computer Systems*,
21. Sardjono, W., Novian, R. The Influence of the Application of Knowledge Management System on the Increasement in the Performance of Employees of SDM Pro Global (2018) *Proceedings of 2018 International Conference on Information Management and Technology, ICIMTech 2018*, art. no. 8528090, pp. 6-10.S
22. Akram, K., Hilman, H. Effect of knowledge management activities and dynamic capabilities on employee performance in the banking sector: Empirical evidence from Pakistan (2018) *Studies in Business and Economics*, 13 (2), pp. 41-60.
23. Ahmad, J., Malik, M.I., Anwar, A. Knowledge management and employee's performance in telecommunication industry (2018) *FWU Journal of Social Sciences*, 12 (2), pp. 135-146
24. Sahana, S.C., Menon, R.B. Enhancing sustainable employees performance of engineers working as faculties in engineering colleges of Mysore city through knowledge management practices (2018) *International Journal of Mechanical Engineering and Technology*, 9 (1), pp. 207-215.
25. Abualoush, S.H., Obeidat, A.M., Tarhini, A., Masa'deh, R., Al-Badi, A. The role of employees' empowerment as an intermediary variable between knowledge management and information systems on employees' performance

26. Ferdiansyah, F., Suroso, J.S. Evaluation of knowledge management system to improve the performance of employees at PT data citra Mandiri (2017) Proceedings - 2017 International Conference on Applied Computer and Communication
27. Nana, D., Abdul, K.M. (2020). The influence of knowledge management towards employee's competence and its effect to the employee's performance.
28. Shahraki, M., Keshtegar, A. The relationship between knowledge management with creativity and innovation (2016) *Social Sciences (Pakistan)*, 11 (6), pp. 922-927.
29. Mahmudi, R.K., Monavvar, M.S. Effect of knowledge management on employees' performance improvement (2016) *IIOAB Journal*, 7, pp. 98-100.
30. Simamora, B.H. The impact of request tracker application as knowledge management system on employee performance (2015) *Journal of Theoretical and Applied Information Technology*, 76 (2), pp. 222-229.
31. Danescu, T. Connotations regarding employees and the intellectual capital (2015) Proceedings of the 25th International Business Information Management Association.
32. Barrett, B. Measuring human capital's contribution to knowledge management in today's workplace (2015) Proceedings of the International Conference on Intellectual Capital, Knowledge Management
33. Hussain, I. et al. The Impact of Knowledge Sharing Enablers on Employees' Performance: An Empirical Study on READ Foundation in Azad Jammu, Kashmir.
34. Park, M.J., Dulambazar, T., Rho, J.J. The effect of organizational social factors on employee performance and the mediating role of knowledge sharing: focus on e-government utilization in Mongolia.
35. Hahn, M.H., Lee, K.C., Lee, D.S. (2020). Network structure, organizational learning culture, and employee creativity in system integration companies.
36. Alhanshi, M., Albraiki, H. Knowledge sharing and employee development in oil and gas companies in the United Arab Emirates (2015) Society of Petroleum Engineers - SPE Middle East Intelligent Oil and Gas Conference and Exhibition.
37. Shamshiri, M. et al. Investigating the relationship between knowledge sharing and improvement in the employee performance based on the ACHIEVE model (2014) *Advances in Environmental Biology*, 8 (22), pp. 346-351.
38. Galunic, C., Sengupta, K. (2014). Deus ex machina? Career progress and the contingent benefits of knowledge management systems. *European Management Journal*
39. Al Mehairi, H.A., Binning, K. Employee oriented vs. work oriented cultures and the moderating role of education on intention to share knowledge
40. Martins, A., Martins, I., Xiao, L. Employability and talent development in the knowledge economy: What's going on? (2014) *International Journal of Sustainability in Economic, Social, and Cultural Context*, 9 (3), pp.
41. Mura, M., Longo, M. Developing a tool for intellectual capital assessment: An individual-level perspective (2013) *Expert Systems*, 30 (5)
42. Sourì, S., Rezaei, N., Atarian, G. The analysis of the relation of evaluation criteria of employee's performance with implementation of knowledge management of Padide Paydar Company (2013) *Advances in Environmental Biology*, 7 (10), pp. 3049-3059.
43. Kane, G.C. et al. Is high performance contagious among knowledge workers? (2012) *International Conference on Information Systems, ICIS 2012*, 2, pp. 1328-1342.
44. Raisiene, A.G. (2019) Restructuring organization for performance and effectiveness. *Transformations in Business and Economics*, 11 (2), pp. 233-245.
45. Chang, Y.-Y., Hsu, P.-F., Li, M.-H., Chang, C.-C. Performance evaluation of knowledge management among hospital employees (2011) *International Journal of Health Care Quality Assurance*, 24 (5), pp. 348-365.
46. Al-Raisi, A., Amin, S., Tahir, S. E-performance systems: A method of measuring performance (2011) *International Journal of Web Portals*, 3 (1), pp. 50-57.
47. Yu, S., Shi, Y. The performance for knowledge workers based on the SEM (2010) 2010 International Conference on Management and Service Science, MASS 2010, 5578101,
48. Jianping, Z. (2020) Study of knowledge-based dynamic consistency upon employee performance standards.