KNOWLEDGE MANAGEMENT AND EMPLOYEES' PERFORMANCE: A SYSTEMATIC REVIEW, SYNTHESIS AND WAY FORWARDS

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Abstract

The purpose of this study was to investigate the relationship between knowledge management (KM) and employees' performance. The systematic review was conducted based on reviewing 30 selected Scopus sourced articles published between 2015 and 2024 on the areas of knowledge management. The research data was investigated through categorizing the research data in different categories based on different criteria in consideration of enhancing the quality of the research findings. The research data was analyzed utilizing a Qualitative Content Analysis technique. The research revealed that KM positively affected employees' performance. However, the finding of Rahmayanto et al. (2019) was the reverse. The research specifically revealed that however KM affects employees' performance; there are also rare situations at which KM may not affect employees' performance in practical implementation of organizational management. As an important message for managers, in the organization with better practice of knowledge management employees' performance is pleasurable. Finally, the authors strongly recommended for the future researchers to employ appropriate research methods; as well as to use the latest software for the research data analysis.

Keywords: *Knowledge, employee, performance, knowledge management, employees' performance*

1. Introduction

The concept of knowledge management emerged in the 1970s (Wang, 2018). In relation to this, the research work of Leord-Barton by the topic "A Company having KM Strategy: A Case Study on Chaparral Steel" is among evidence for the emergence of KM in the 1970s (Kumar, 2015). Afterward, following the 1970s, the concept of KM attracted researchers' attention and the number of articles was published in many folds in the next two decades. For instance, in the 1980s more than ten papers, in the 1990s the number of the publications increased twice (Wiig, 1997). Hence, knowledge management became recognized as a scientific discipline from the beginning of the 1990s.

Thus, researchers have defined the term Knowledge Management differently at different times. According to Fernanda & Salwa (2018), knowledge management is a process of planning, implementing, controlling and evaluating organizational knowledge in order to enhance performance. Likewise, KM is the process of acquiring, exchanging, renewing, and managing information and knowledge in the organization to achieve better performance, productivity, and cost saving (Kassa & Ning, 2023). Wang (2018) has explained KM managing activities or KM process into six stages such as knowledge adoption, creation, storage, transfer, sharing, and application of knowledge. Overall, KM involves knowledge identification, creation, sharing, transferring, acquisition, and utilization processes. In the current study, the researcher summarized the KM Process into four levels such as knowledge creation, storing, sharing, and utilizing knowledge within the organization for the best performance of the firm.

The knowledge management encompasses the practices of managing the growth and status of knowledge at individual level, group level, and organizational level (Nonaka, 1991; and Alavi & Leidner, 2001). Hence, the study of knowledge management is significant and has gotten attentions in the studies of academic disciplines such as business, management, organizational theory, public administration, and management of human resource (Kassa & Ning, 2023).The study of KM is also substantial in the academic disciplines such as financial management, material resource management, transport management, military management, peace and security management, sociology, psychology, anthropology, business administration, policy design and analysis, health, engineering, etc.

In practice, in organization management, knowledge management and employees' performance (i.e. how employees accomplish their tasks and behave at the workplace) are interrelated. Employees' performance involves: employees' productivity, quality of their work, creativity and innovation; as well as employees' morale and engagement. In fact, the success of employees' work performance depends on their ability that involves employees' knowledge, skills, and competences. Hence, employees' performance and knowledge management have relations. Accordingly, the earlier research findings indicated that employees' work performance is affected by employees' knowledge and its management (Shami et al., 2021; Zargar & Rezaee, 2013; and Leksono, 2024). However, the investigation variable and magnitude of influencing one on the other may not be similar in different studies. Therefore, in order to increase employees' performance, enhancing employees' knowledge must be taken as an enforcing practice of managers.

The problem that initiated the researchers to carry out the study on "Knowledge Management and employees' performance" were relatively insufficient number of studies on the specific topic compared with its significance; since, KM increase employees' as well as business performance and enhances competitive power of companies in local and international market (Zargar & Rezaee, 2013). In organizational management, concerns allied to KM and employees' performance are strategic and critical for the best performance (Leksono, 2024b), however the number of studies on KM and employees' performance were inadequate compared to those on KM and organizational performance. In addition, in researchers' observation, studies on the relationship between KM and employees' performance were not well researched with fitting standards and show methodological gaps that require for extra investigation.

2. General Objective

The overall objective of the study was to systematically review published articles on Knowledge Management and employees' performance.

Specific objectives

The systematic review carried out in order to attain the following specific objectives to:

- explore the existing KM literatures as a foundation for the new insight
- evaluate the research papers' outlook with framework of the KM theories
- inspect papers in different diminutions categorization into different groups
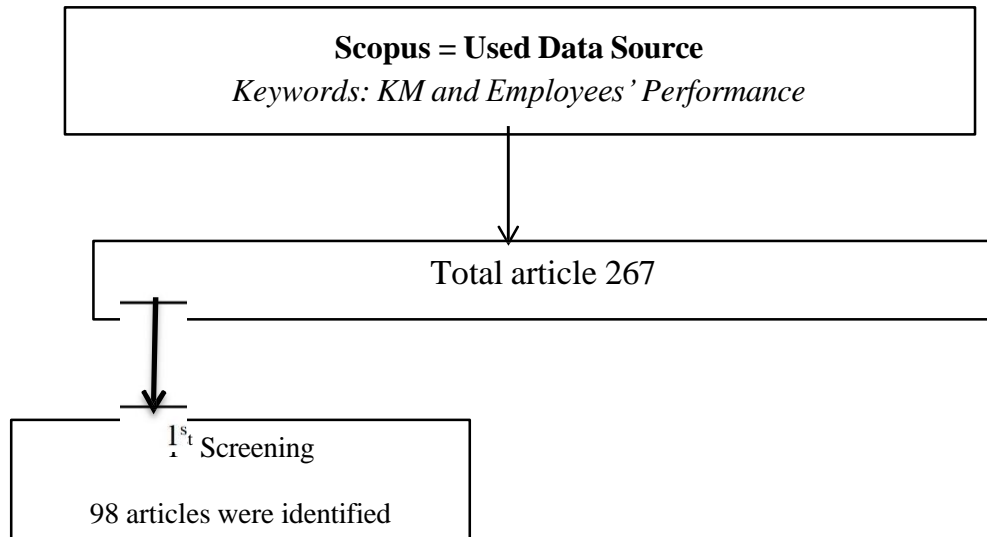
- investigate the methodology used in the studies

- examine the research findings on KM and employees' performance, and
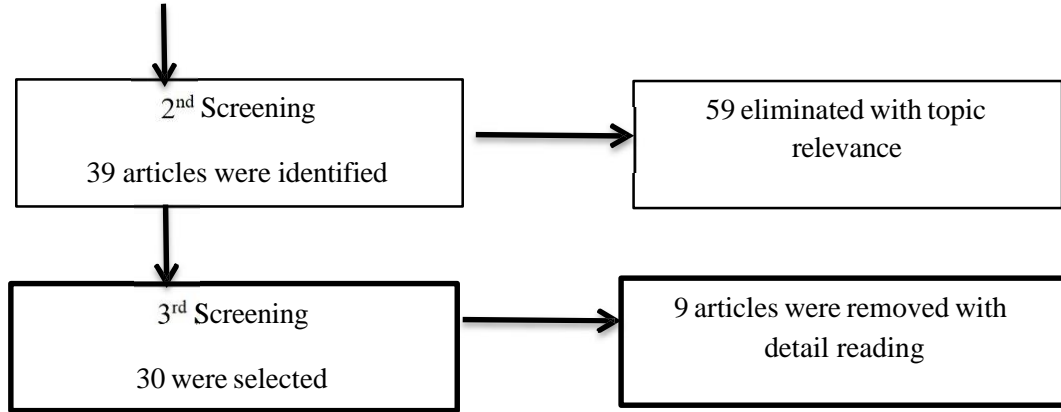
- indicate the future research directions

2. Methodolgy of the study

We have used secondary data from online research articles. The authors have refined articles following the PRISMA (Preferred Reporting Item for Systematic Review and Meta-Analysis) procedure to simplify the analysis of the research data. It helps researchers to analyze research papers, evaluate the research findings in a complete manner, analyze papers, and recommend for future directions (Kassa & Ning, 2023; and Trifu et al., 2022). It benefits the researchers to improve the research quality through utilizing evidence based decision making approaches.

2.1. Research Articles selection Procedures

In the investigation, the researchers collected published articles using keywords knowledge, employee, performance, knowledge management, employees' performance. All articles were collected from online Scopus data source; because Scopus publishes reliable articles. In the beginning, 267 articles were collected from the mentioned online source. In the initial screening process 169 articles were removed due to they were out of the study time limit 2015 and 2024. In the second screening 59 articles were removed of topic irrelevance to the study. By the third screening, 9 articles were removed through detail reading; and lastly 30 articles were selected for the systematic review (Figure 1).

Scopus = Used Data Source
Keywords: KM and Employees' Performance

Total article 267

1st Screening

98 articles were identified

Figure 1: The Process of Articles Selection & Refining
Source: Authors Modified Construct based on Rashdi et al. (2019)

3. Result

The research papers classification

The researchers in this study categorized the papers into several groups based on the years of the publications, the papers' topic, the location of the study areas, and the research methods employed to analyze the research data.

Papers classifications based on the year of publication

The research papers on Knowledge Management that were published on the Scopus database between 2015 and 2024 were the main focus of the investigation. Accordingly, out of 30 research articles 3 paper such as Jafari et al. (2015); Rashidi et al. (2015); and, Caroline & Mugun (2015) were published in 2015; while 2 papers: Nayebzadeh et al. (2016); and, Vali et al. (2016) were released in 2016. Likewise, Ghanbari & Dastranj (2017), and, Khanal et al. (2017) were published in 2017. Similarly, 3 papers such as Ahmad et al. (2018); Alyoubi (2018); Annasrudin & Danila (2018); Susanty et al. (2018); and, Kianto et al. (2018) released in 2018. Likewise, 4 papers Hakim et al. (2019); Razi et al. (2019); Rožman et al. (2019); and, Shawaqfeh et al. (2019) were published in 2019; while another research articles included in the study such as Abeyrathna & Priyadarshana (2020); El-Chaarani & El-Abiad (2020); Paudel (2020); and, Samuel et al. (2020) were published in 2020. The study also involves 5 papers that were released in 2021 such as Le et al. (2021); Sulistyanto et al. (2021); Shami et al. (2021); Sunarsi et al. (2021); and, Sari and Suharto (2021). Similarly, 3 papers that were published in 2022 such as Annisa & Dyki (2022); Nweze et al.

(2022); and, Tilahun (2022) were also parts of the systematic review. Likewise, Kosklin et al. (2023), and Leksono (2024a) that were published in 2023 and 2024 sequentially were also included in the study (Table 1).

Table 1: Articles classifications based on the year of publication

| No	Year	Number of papers	Published papers
1	2015	3	(Jafari et al., 2015; Rashidi et al., 2015; and, Caroline & Mugum, 2015)
2	2016	2	(Nayebzadeh et al., 2016; and, Vali et al., 2016)
3	2017	2	(Ghanbari & Dastranj, 2017); and, Khanal et al., 2017)
4	2018	5	(Ahmad et al., 2018; Alyoubi, 2018; Annasrudin & Danila, 2018; Susanty et al., 2018; and, Kianto et al., 2018)
5	2019	4	(Hakim et al., 2019; Razi et al, 2019; Rožman et al., 2019; and, Shawaqfeh et al., 2019)
6	2020	4	(Abeyrathna & Priyadarshana, 2020; El-Chaarani & El-Abiad, 2020; Paudel, 2020; and, Samuel et al., 2020)
7	2021	5	(Le et al., 2021; Sulistyanto et al., 2021; Shami et al., 2021; Sunarsi et al., 2021;and, Sari and Suharto, 2021)
8	2022	3	(Annisa & Dyki, 2022; Nweze et al., 2022; and, Tilahun, 2022)
9	2023	1	(Kosklin et al., 2023)
10	2024	1	(Leksono, 2024a)

Source: Authors Construct, 2024
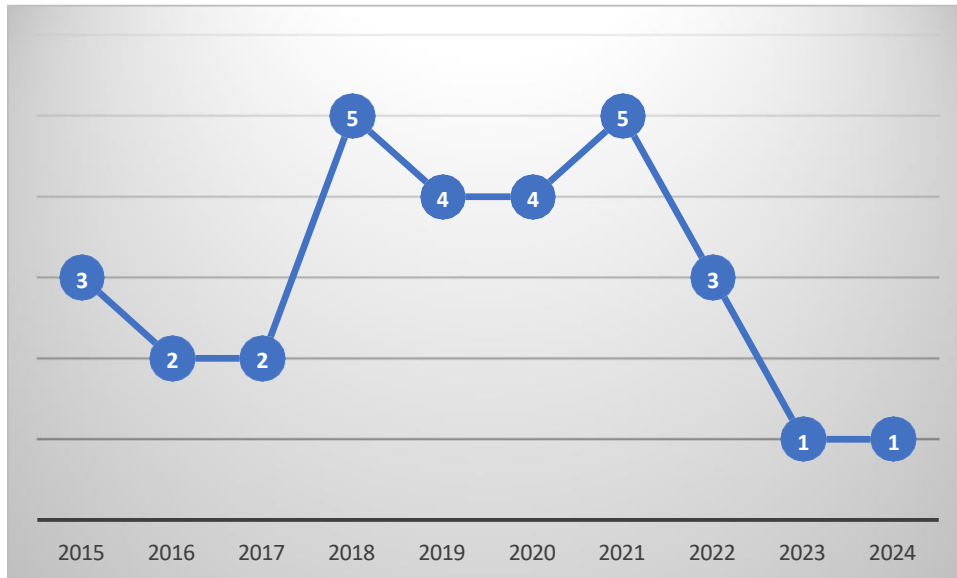
Figure 2: The Number of KM Articles Published Per Year
Source: Authors Construction, 2024

Research articles classifications based on the research topics

In the study, the identified 30 articles were categorized into four groups based on the identified in the Table 2. The categorizing criteria were how the topic was articulated to investigate knowledge management and Employees' work performance. Hence, 9 (30%) articles were categorized under the category of "The Effect of KM on Employees' Performance", 8 (27%) were in the category of "The Impact of KM on Employees' Performance", 2(7%) were in the category of "The Influence of KM on Employees' performance", and 11 (36%) were in the category of "KM & Employees' Work Performance". Overall, the KM articles in all categories were explained and investigated the relationship between KM and Employees' Performance.

Table 2: Articles classifications based on the research topics

No	Articles categorization criteria	Number of papers		Published articles
1	The Effect of KM on Employees' Performance	9	30%	Nayebzadeh et al. (2016); Sari & Suharto (2021); Kosklin et al. (2023); Tesfaye Tilahun (2022); Annisa & Dyki (2022); Hakim et al. (2019); Ghanbari S & Dastranj M (2017); Jafari et al. (2015); and, Nweze et al. (2022).

2	The Impact of KM on Employees' Performance	8	27%	Kianto et al.(2018); Shawaqfeh et al.(2019); Annasrudin & Danila(2018); Shami et al.(2021); Leksono (2024); Abeyrathna & Priyadarshana (2020); Alyoubi (2018); and, Rožman et al.(2019).
3	The Influence of KM on Employees' performance	2	7%	Sunarsi et al. (2021); and, Le et al.(2021).
4	KM & Employees' Work Performance	11	36%	Sulistyanto et al. (2021); Rashidi et al. (2015); Vali et al. (2016); Samuel et al. (2020); Ahmad et al.(2018); El-Chaarani & El-Abiad (2020); Razi et al. (2019); Susanty et al. (2018); Khanal et al. (2017); Caroline & Mugum (2015); and, Prasad (2020)
	Total	30	100	

Source: Authors Construct, 2024

Articles classifications based on geographical locations

In relation to papers' classification in terms of geographical location of the research data, there were from three continents; namely, Africa, Asia, and Europe. In particular, 2(7%) research papers Nweze et al (2022) and Tilahun (2022) the location of the research data were from Africa. Similarly, 25(83%) research papers included in the study were from Asia. The research papers were (Jafari et al., 2015; Rashidi et al., 2015; Caroline & Mugum, 2015; Rashidi et al. (2015); Nayebzadeh et al. (2016); Vali et al. (2016); Ghanbari & Dastranj (2017); Khanal et al. (2017); Ahmad et al. (2018); Alyoubi (2018); Annasrudin & Danila (2018); Susanty et al. (2018); Kianto et al. (2018); Hakim et al. (2019; Razi et al (2019); Shawaqfeh et al. (2019); Abeyrathna & Priyadarshana (2020); El-Chaarani & El-Abiad (2020); Paudel, 2020; Samuel et al. (2020); Le et al. (2021); Sulistyanto et al. (2021); Shami et al. (2021); Sunarsi et al. (2021); Sari & Suharto (2021); Annisa & Dyki (2022); and, Leksono (2024a). Similarly, Rožman et al. (2019) and Kosklin et al. (2023) were also two articles from Europe, while 3(10%) papers Nweze et al (2022), Caroline & Mugum (2015), and Tilahun (2022) were from Africa continent.

Table 3: Articles classifications based on geographical locations
Source: Authors Construct, 2024

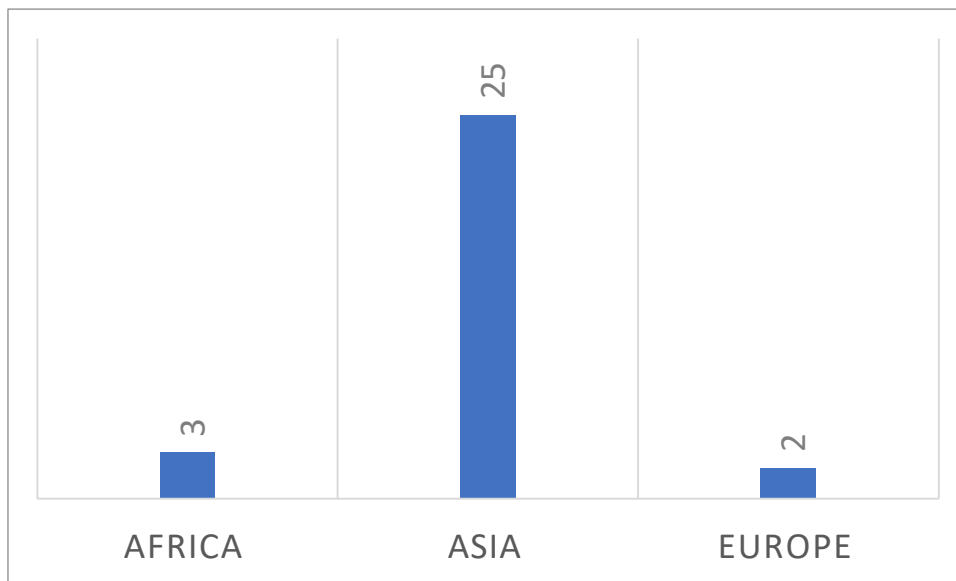| No	Continent	Number of papers	%	Published papers
1	Africa	3	7	Nweze et al (2022), Caroline & Mugum (2015), and Tilahun (2022)
2	Asia	25	83	(Jafari et al., 2015; Rashidi et al., 2015; Caroline & Mugum, 2015; Rashidi et al. (2015); Nayebzadeh et al. (2016); Vali et al. (2016); Ghanbari & Dastranj (2017); Khanal et al. (2017); Ahmad et al. (2018); Alyoubi (2018); Annasrudin & Danila (2018); Susanty et al. (2018); Kianto et al. (2018); Hakim et al. (2019; Razi et al (2019); Shawaqfeh et al. (2019); Abeyrathna & Priyadarshana (2020); El-Chaarani & El-Abiad (2020); Paudel, 2020; Samuel et al. (2020); Le et al. (2021); Sulistyanto et al. (2021); Shami et al. (2021); Sunarsi et al. (2021); Sari & Suharto (2021); Annisa & Dyki (2022); and, Leksono (2024a).
3	Europe	2	7	Rožman et al. (2019), and Kosklin et al. (2023)

Figure:3 Articles classification in geographical location
Source: Authors Construct, 2024

Artcles classifications based on the research approaches

A research approach is a researcher's method for gathering, evaluating, and interpreting data that involve qualitative, quantitative, and mixed approaches (Grover, 2015). Hence, based on the research approach the researchers categorized the papers into three groups such as quantitative, qualitative and mixed approaches. In particular, 3(10%) research articles included in the study Samuel et al. (2020); Kosklin et al. (2023), and Sulistyanto et al. (2021) employed by qualitative approach, while 2(7%) papers El-Chaarani & El-Abiad (2020) and (Le et al., 2021) have employed by the mixed research approach. The remaining 25(25%) research papers included in these studies were conducted with a quantitative research approach (Table 4).

Table 4: Articles classifications based on the research approach

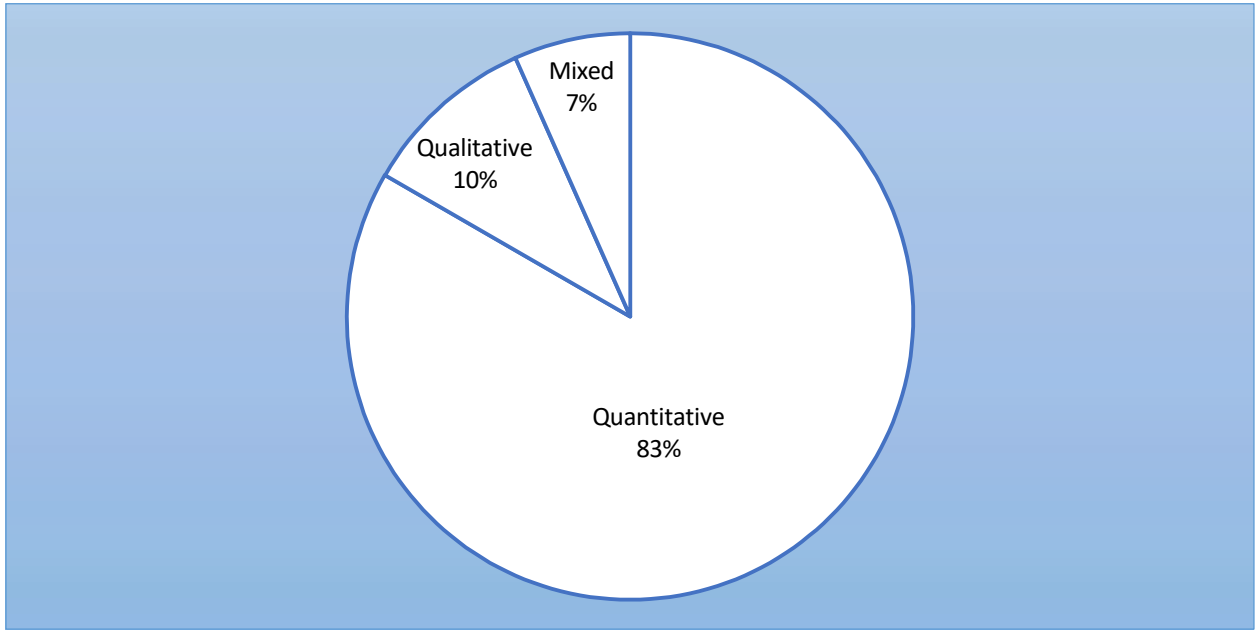| No	Research approach	Number of papers	Percent (%)
1	Quantitative	25	83
2	Qualitative	3	10
3	Mixed	2	7

Source: Authors Construct, 2024

Figure 4: Articles classification based on research approach
Source: Authors Own Construct 2024

Articles classifications based on data analyzing tools

The researchers have categorized research papers into qualitative and quantitative groups based on the research approaches that the authors used. Hence, 3 (10%) papers were categorized under qualitative, while 27 (90%) papers were under the quantitative category. In particular, of the three articles that fall under the qualitative methodology category, two of them used Content Analysis to analyze the research data, and the third paper used Thematic Content Analysis. However, of the studies falling under the quantitative approach category, eight employed Structural Equation Modeling (SEM) and nineteen used Statistical Package for Social Science (SPSS) to analyze the research data (Table 5).

Table 5: Articles classification based on data analyzing tools

No		Method /tools of data analysis	Number of papers	(%)
1	Qualitative Approach	Content analysis	2	7
		Thematic Content Analysis	1	3

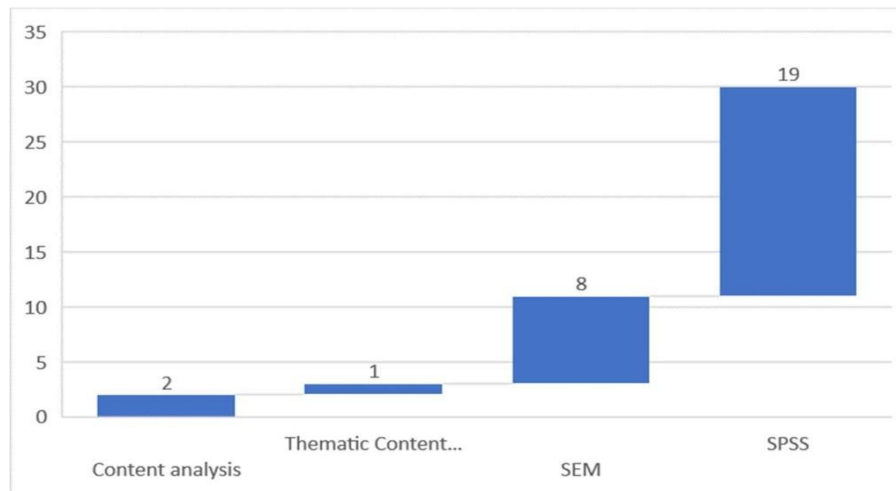| 2	Quantitative Approach	SEM	8	27
		SPSS	19	63

Source: Authors Construct, 2024

Figure 5: Articles classification based on data analyzing tools
Source: Authors Construct 2024

4. Discussion

The overall purpose of this study was to systematically review published articles on the areas of knowledge management and employees' performance. In particular, the specific objectives were: to explore the existing KM papers as a foundation for the new insight, evaluate the research papers' outlook with framework of the KM theories, inspect he published literatures in different dimensions through categorizing them into several groups based on different criteria, investigate the methodology used in the studies, examine the research finding on KM and employees' performance, and indicate the future research directions.

In relation to the research data, it was based on the analysis of 30 research papers from Scopus data base on Knowledge Management and Employees' Job Performance published between 2015 and 2024. Methodologically, the researchers used a Preferred Reporting Item for Systematic Review and Meta-Analysis (PRISMA) techniques (Trifu et al., 2022); which is suitable to procedurally select the research. Thus, through this procedure the researchers

selected 30 appropriate KM papers from the total of 267 collected research articles from the area of knowledge management. As earlier mentioned in Table -5, the 30 papers were from qualitative and quantitative research categories.

In relation to three articles conducted by qualitative method, 2 papers Sulistyanto et al. (2021); and, Kosklin et al. (2023) have employed Qualitative Content Analysis technique to analyze the research data of 8 and 16 selected articles orderly; while Samuel et al. (2020) employed Thematic Content Analysis to analyze 34 selected research articles. This study employed Qualitative Content Analysis to analyze qualitative research data.

Hence, the findings of the three qualitative studies such as Sulistyanto et al. (2021), Kosklin et al. (2023), and Samuel et al. (2020) were obtained from 58 articles (the research data of the three papers) included in these three papers. The findings of 58 articles indirectly affect the result of the three articles. The findings of the three researches: Sulistyanto et al. (2021), Kosklin et al. (2023), and Samuel et al. (2020) revealed knowledge management positively affected employees' work performance.

Regarding the 25 research papers categorized under quantitative research, 19(65%) papers, and 8(27%) data were analyzed by utilizing quantitative data analyzing tools SPSS and SEM. The majority of them utilized SPSS, which is not the latest software to manipulate quantitative data. Out of 25 papers employed by quantitative research approach 24 (96%) researchers' findings revealed that KM affects employees' performance. However, Rahmayanto et al. (2019) findings were different; which as knowledge management did not affect the performance of employees in the Library and Archive Office of Wakatobi Regency. The remaining two Mixed-Method employed researches such as (El-Chaarani & El-Abiad, 2020) and (Le et al., 2021), used SPSS software to analyze quantitative data, in their finding showed that KM positively affected employees' performance.

5. Conclusion and recommendation

The main aim of this study was to systematically review the research articles on KM and employees' performance. The review was employed on selected 30 research papers published between 2015 and 2024 on the areas knowledge management and employees' performance. The review has confirmed that the studies were within the framework of the prominent

knowledge management theories. Diversified criteria based classifications of the papers were important to evaluate research data from different dimensions, to increase the quality, and acceptance of the research findings. In some research papers methodological gaps were observed; like utilizing insufficient number of sample size; and low practice to employ the recent software to investigate research data. In this study, the analysis of the research data was employed by Qualitative Content Analysis technique. The finding of the study revealed that KM positively affected employees' job performance. In contrast, Rahmayanto et al. (2019) finding showed KM did not affect employees' performance. This indicates that in rare situations, knowledge management may not influence employees' performance. The authors strongly recommended for the future researchers to employ the appropriate research methods; as well as to utilize the latest software for the research data analysis.

Bibliography

Abeyrathna, G., & Priyadarshana, A. J. M. (2020). The impact of knowledge sharing on performance: Evidence from Sri Lankan public sector employees. *3rd Research Conference on Business Studies (RCBS)*, *8*, 288–297.

Alavi, M., & Leidner, D. E. (2001). Review on knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly: Management Information Systems*, *25*(1), 107–136. https://doi.org/10.2307/3250961

Alyoubi, B. (2018). Impact of knowledge management on employee work performance : Evidence from Saudi Arabia. *The International Technology Management REview*, *7*(1), 13–24.

Arrum Yoanita Sari, Suharto, I. K. S. (2021). The effect of knowledge management and learning organization on employee performance through job satisfaction in the Inspectorate General of the Indonesian Military. *Journal of Research in Business and Management*, *9*(7), 57–66.

Danila, M. A. N. and N. (2018). The impact of knowledge management on work performance through the employees' competence: A case study of "MP" Bank. *Journal of Economics, Business & Accountancy Ventura*, *20*(3), 341–346. https://doi.org/10.14414/jebav.v20i3.1135

Denok Sunarsi, Umi Rusilowati, Suwanto, Azhar Affandi, H. A. (2021). The influence of knowledge management and learning organizations on high school employee performance. *Journal of Educational Science and Technology (EST)*, *7*(2), 253–260. https://doi.org/10.26858/est.v7i3.25095

Rashidi, R. P., Sheikhpour, M., & Mehdizade, S. (2015). *Analyzing the relationship between knowledge management and performance of employees: A case of Islamic Azad*

University of Kerman. 5, 5371–5377. https://pdfs.semanticscholar.org/8535/f0c6e2b77c9427c22f9318d61c67a8c7de77.pdf

Razi, M. J. M., & Habibullah, M., & Hussin, H. (2019). Knowledge management behavior among academicians: The case of a Malaysian higher learning institution. *Journal of ICT*, *18*(2), 183–206.

Rožman, M., Shmeleva, Z., & Tominc, P. (2019). Knowledge management components and their impact on work engagement of employees. *Naše Gospodarstvo/Our Economy*, *65*(1), 40–56. https://doi.org/10.2478/ngoe-2019-0004

Saadat, V., & Saadat, Z. (2016). Organizational learning as a key role of organizational success. *Procedia - Social and Behavioral Sciences*, *230*(1), 219–225. https://doi.org/10.1016/j.sbspro.2016.09.028

Samuel, S., Hasudungan, P., Erna, M., Wulan, T. P., Iwan, S., Margo, P., & Nenden, K. (2020). Knowledge management and employee performance: A systematic literature review. *RJOAS*, *5*(101), 150–159. https://doi.org/10.18551/rjoas.2020-05.16

Shahzadi, I. (2014). Impact of employee motivation on employee performance. *European Journal of Business and Management*, *6*(23), 159–167.

SHAIKH, M. R., TUNIO, R. A., & SHAH, I. A. (2017). Factors affecting to employee's performance: A study of Islamic banks. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *7*(1), 312–321. https://doi.org/10.6007/ijarafms/v7-i1/2722

Shami, G. M., Ummar, R., Dost, M. K. Bin, Shahzadi, Q., & Mirza, F. (2021). The impact of knowledge management practices on employee's performance in banking sector of Pakistan. *Multicultural Education*, *7*(8), 156–168. https://doi.org/10.5281/zenodo.5172979

Spender, J. C. (1996). Making knowledge the basis of a dynamic theory of the firm. *Strategic Management Journal*, *17*, 45–62. https://doi.org/10.1002/smj.4250171106

Sulistyanto, T. H., Djamil, M., Sutawidjaya, A. H., & Nawangsari, L. C. (2021). A literature review of knowledge management role in employee performance. *Jurnal Dinamika Manajemen*, *12*(85), 285–290. file:///C:/Users/MY-COMP/Downloads/31413-87610-1-PB.pdf

Susanty, A. I., Yuningsih, Y., & Anggadwita, G. (2018). Knowledge management practices and innovation performance: A study at Indonesian government apparatus research and training center. *Journal of Science and Technology Policy Management*, *10*(2), 301–318. https://doi.org/10.1108/JSTPM-03-2018-0030

Tilahun, T. (2022). Effect of knowledge management system on employees' performance customer service department of Ethio-telecom. *International Journal of Public Administration and Management Research (IJPAMR)*, *8*(1), 28–49. https://sdbindex.com/Sourceid/00000429,

Vali, L., Izadi, A., Jahani, Y., Okhovati, M., Health, E., Information, M., Sciences, M., & Sciences, M. (2016). Investigating knowledge management status among faculty members of Kerman University of Medical Sciences based on the Nonaka Model in 2015. *Electronic Physician*, *8*(8), 2738–2746.

Wang, P. (2018). *Visualizing the Academic Discipline of Knowledge Management*. https://doi.org/10.3390/su10030682

Wiig, K. M. (1997). Knowledge management: Where did it come from and where will it go? *Expert Systems with Applications*, *13*(1), 1–14. https://doi.org/10.1016/S0957-4174(97)00018-3

Zargar, E., & Rezaee, M. (2013). The study of knowledge management effect on performance rate of employees. *European Online Journal of Natural and Social Sciences*, *2*(3), 3061–3066. www.european-science.com