

Coaching, mentorship, and apprenticeship as knowledge management strategies in organizations: a systematic review

Owusu- Bempah, Edna

University of Education, Winneba

Department of Management Sciences, Winneba- Ghana.

Keywords

Apprenticeship, Coaching, Communities of Practice, Knowledge Management, Knowledge Management Strategies, Mentorship.

Abstract

Purpose – This study seeks to examine the extent of adoption of knowledge management (KM) strategies: coaching, mentorship, and apprenticeship in organizations.

Design/Methodology/Approach – A systematic review was conducted on 50 sampled articles published between 2000 and 2023. The review encompassed articles employing quantitative, qualitative, and mixed-method research approaches. All 50 articles, primarily sourced from Emerald/Emerald Insight, Elsevier, Taylor & Francis, ResearchGate, MIS Quarterly, Journal of Knowledge Management, SAGE, and other journals, were selected for the analysis.

Findings - The findings from the study revealed that KM strategies can significantly impact organizational performance by enhancing innovation. However, some organizations lack documented KM strategies.

Practical Implications and Conclusion – Knowledge sharing in the studied organizations tends to rely heavily on individual efforts, as there are no documented strategies in place. The effectiveness of these individualistic knowledge-sharing approaches is minimal and constrained. Organizations should formalize their KM strategies. Future research could focus on the integration of technology with KM strategies, such as e-coaching and e-mentoring.

Introduction

The ability of a business to remain competitive in the modern global marketplace is significantly influenced by knowledge. Therefore, to enhance the organizational knowledge base, companies must recognize it as a valuable resource (Bollinger and Smith, 2001) and establish a system for leveraging the collective intelligence and talents of their employees. This is accomplished through knowledge management. The term "knowledge management" first emerged in the 1980s when Porter (1985) introduced the concept of competitive advantage, which pertains to strategies for creating value for customers by offering distinctive goods and services. To assist a company in achieving its goals and objectives, White (2004) emphasizes that knowledge management involves the processes of developing, storing, sharing, and reusing expertise.

As a result, both knowledge management and organizational learning encompass a combination of the following elements: mentoring, the creation of knowledge databases, institutional repositories, and the assignment of tasks to staff members that align with their talents can be best utilized; and more (Swan et al., 1999). The existence of knowledge management is further supported by Yaacob et al. (2011). It is essential to possess contemporary knowledge management skills to keep pace with current trends in learning, working, and living productively. According to Syysnummi and Laihonen (2014), knowledge is the most valuable resource that can elevate an institution beyond its current state and shape its future. The foundation for an institution's advancement to higher levels lies in its skills and knowledge base.

Literature review

Regarding the fulfilment of these needs, there are at least three primary conflicting paradigms (Scawrough and Carter, 2000). These include the organizational, business strategy, and technological schools. The Technological School views knowledge management as fundamentally technological, as it heavily revolves around information systems, databases, measurement devices, recording tools, and

communication technologies. A second approach is that of the Organizational School, which views knowledge as a socially constructed phenomenon embedded in individuals and their social relationships, influenced by organizational structures and culture. In this paradigm, knowledge cannot be extracted or secreted; rather, it is enacted and shared among individuals (Brown and Duguid, 1991; Nonaka, 1991, as cited in Meso and Smith, 2000). This perspective may lead to the development of a community of interest or a community networking model, in which knowledge is continually recreated through interaction and social networking (Swan et al., 1999). The Business Strategy School represents a third approach, wherein knowledge is regarded as a vital resource within the framework of a resource-based perspective of the company. Organizational knowledge serves as a foundation for businesses to develop and sustain a unique competence (Laurie and Beaumont, 2002) that, if effectively harnessed, enables them to thrive in a competitive environment. A knowledge-based theory of the firm has been articulated by scholars such as Grant (1996), Spender (1996), and Liebeskind (1996), building upon the pioneering work of Coase (1937), Penrose (1959), Barney (1991), and others.

The information center's business plan must recognize the necessity of capturing knowledge and actively supporting efforts to enhance it if KM is to be successfully implemented. People possess more knowledge than technology can provide, which means that significant human effort is required. KM facilitates knowledge sharing, thereby promoting and streamlining organizational focus. The personality and situational traits of participants influence how they share knowledge within the organization (Aharony, 2011). There are no solutions that can be obtained simply by purchasing new technology; achieving effective KM requires a deeper understanding of knowledge management and the development of a comprehensive strategy (Abah et al., 2022).

In the research conducted by the Organization for Economic Cooperation and Development (OECD, 2003), knowledge management (KM) practices have been categorized into four distinct groups: communication; training and mentoring; policies and strategies; and knowledge capturing and acquisition.

One of the most significant factors influencing a company's productivity is the implicit knowledge assets of its employees. However, for an organization to operate effectively, implicit knowledge alone is insufficient. The objective is to ensure that all organizational levels are explicitly aware of the employees' implicit knowledge (Abah et al., 2022). It is evident that successful businesses invest in their employees to expand their perspectives, skills, and experiences for the global workplace (Ulrich, 1997). Enhancing employee competencies directly impacts the company's financial performance (Becker et al., 2001). These points support the idea that mentorship and training are highly beneficial.

"There are many types of knowledge relevant to the firm, some of which have particular relevance for management in its pursuit of the sources of value it can bring" (Laurie and Beaumont, 2002).

Knowledge that is expressed, documented, or otherwise codified refers to "knowing about" and is relatively easy to transmit. Codification can take the form of manuals, specialized databases, or collections of case law in professional service firms, as well as standardized research methods or templates for drafting legal documents. In contrast, tacit knowledge encompasses the knowledge that cannot be directly shared between individuals; it must be used, practised, and socially interacted. Traditionally, this type of knowledge was cultivated within professional firms through the master-apprentice relationship and the contributions of senior partners, who enhanced the company's social capital through customer interactions and networking (Maister, 1997). Consequently, managing tacit knowledge as a source of value is more challenging, and its dissemination is likely to be gradual and complex. However, it also has greater potential to generate strategic value (Lane and Lubatkin, 1998). If this is the case, it will be essential for businesses to develop strategies to convert tacit knowledge into articulated information, thereby making it more manageable and accessible.

The primary objective of this research is to conduct a systematic review of KM strategies in businesses, specifically focusing on techniques such as coaching, mentorship, and apprenticeship. This study will highlight the identified KM strategies and assess their effectiveness in managing knowledge and their overall success in implementation.

Research Methodology

The PRISMA guidelines, along with the resources, inclusion and exclusion criteria, the systematic review process, and data extraction and interpretation, are all detailed in five important subsections included in this section.

PRISMA

The PRISMA approach, which stands for "Preferred Reporting Items for Systematic Reviews and Meta-Analyses", served as the framework for the systematic review presented in this paper. While healthcare professionals have primarily utilized PRISMA for conducting systematic reviews and meta-analyses, experts in environmental management have also adopted this framework to perform systematic evaluations beyond the medical field.

Resources

This study conducted a comprehensive literature review of works published over the past 23 years on KM techniques employed in businesses, including coaching, mentorship, and apprenticeship. The following five major databases were searched for relevant literature: Google Scholar, Scopus, OpenAlex, CrossRef, and Web of Science. Harzing's Publish or Perish software was utilized for this purpose. A projected publish or perish search strategy is presented in Table 1.

Systematic Review Process

To gather relevant literature, four main stages must be carried out given the systematic review process: identification, screening, eligibility, and data extraction.

Identification

The first process of undertaking systematic reviews is identification. Identification means finding the most relevant studies, using keywords, dictionary terms, thesaurus, encyclopaedias, etc. The keywords used help to build the "search string" for the research (Table 1). The software's search function was improved by using phrases. "Knowledge management," "knowledge management strategies," and "coaching, mentorship, and apprenticeship in organizations" were the search terms used.

Screening

The second part of the systematic review process is termed screening. Now, it is essential to collect the articles linked to the topic of the systematic review and exclude all unrelated items. Table 1 shows the inclusion and exclusion criteria that needs to be followed in finding related articles.

Table 1. Search strategy for articles on coaching, mentorship and apprenticeship as KM strategies in organizations.

Search Strategy Item	Search Strategy
Databases	Google Scholar, Scopus, Crossref, Open Alex, Web of Science and Google semantics
Language	English
Time Filter	2000-2023
Spatial Filter	Global
Inclusion Criteria	The paper should be: <ol style="list-style-type: none"> 1. A peer-reviewed or grey literature 2. a paper published from 2000 and above 3. published in English language
Exclusion Criteria	The paper should be: <ol style="list-style-type: none"> 1. Conducted outside knowledge management 2. A study published online before 2000 3. A report, abstract, commentaries, minutes, and letters to editors.

Eligibility

The researcher looked through Google Semantics for more records. Additionally, pertinent articles were looked up in a reference list of records that qualified. The year of publication, the study's title, and its objective were the three topics used to independently extract the data. Relevance was evaluated in the selected papers' bibliographies. After additional screening, 50 out of the 100 articles that were initially chosen satisfied the inclusion criteria. The primary criterion for selection was the subject matter. The gathered information was examined in the process of doing the thematic analysis and presenting the findings. Every article that was consulted had a structured format that included the name of the author, the publication year, the title of the paper, and the main conclusions of the research.

Data Extraction

The rest of the articles were reviewed, and the data was extracted. The abstract of the selected articles were read, then the full text was also read to identify main and sub- themes tied to the objectives. Subsequently, the identified main themes and sub-themes. After that, themes and sub-themes were rearranged to establish a structure for the selected articles.

Findings

According to the results shown in Table 2.0, in total, 50 articles were chosen for this study. The names of the authors of the articles are captured in Table 2.0 in this study. Besides, the selected articles were published in the years ranging from 2000 to 2023. It aims to identify KM strategies used by organisations. Table 2 displays a summary of some of the results.

Table 2.0 Summary of Systematic review for Coaching, Mentorship and Apprenticeship as Knowledge Management Strategies in Organisations

Author(s)	Year	Article Title	Key Research Findings
Ramjeawon, P.V. and Rowley, J.	2018	Knowledge management in higher education institutions in Mauritius	All the organisations were involved in Knowledge generation, sharing, and transfer. None of the involved institutions had a KM strategy (KMS), despite the fact that participants could talk about KM procedures.
Conway, C.	2007	Mentoring Managers in organisations	There were few women in leadership roles hence a mentorship programme was rolled out to help bring up more women into top managerial roles.
Martensson, M.	2000	A critical review of knowledge management as a management tool	The study highlights importance of support from top management, knowledge sharing and the importance of culture and people
Lustri, D., Miura, I., & Takahashi, S.	2007	Knowledge management model: practical application for competency development.	To provide a case study of a legal services company that used a knowledge management (KM) conceptual model to implement a program for developing competences, as well as the KM model itself.
Evans, M.M., Dalkir, k. and Bidian, C.	2014	A Holistic View of the Knowledge Life Cycle: The Knowledge Management Cycle (KMC) Model.	The study discusses knowledge and knowledge assets; activities and technologies used in the management of organizational knowledge assets.
Abou-Zeid, E.	2002	A knowledge management reference model.	A three-layer knowledge management reference model was developed which covers; First layer: the enterprise's cognitive domain, Second layer: functional layer, Third layer: KM resource layer

Alavi, M. and Leidner, D. E	2001	Knowledge management and knowledge management systems: Conceptual foundations and research issues	The alternative perspectives on knowledge and taxonomies of knowledge were discussed.
Kislov, R., Walshe, K., & Harvey, G	2012	Managing boundaries in primary care service improvement: a developmental approach to communities of practice	The study demonstrated that professional boundaries between general practitioners, practice nurses, and practice managers who co-located in the same practice for a considerable amount of time could be successfully crossed despite epistemic and status differences, resulting in the formation of multiprofessional CoPs.

Knowledge management strategy (KMS) is a main theme found from the selected articles for this study. Mentoring, apprenticeship and communities of practice (COPs) are sub-themes identified from the selected articles for this review.

KM Strategies

A knowledge management strategy (KMS) is termed as a structured guideline of how an existing body will acquire, store, transfer, and exploit its shared knowledge to achieve its set goals, with the motive of fostering innovation, efficiency, and competitive advantage. Mentoring/ peer mentoring, apprenticeship, coaching and communities of practice (COP) are some KMS identified from the review. Mahapa (2013) opines that the execution of KMS tends to enhance the development of novel ideologies, goods, and methods of operation that ultimately improve organizational performance. Arguably, for companies to function at their optimal best, they must adequately exploit their knowledge resources.

Mentoring/ Apprenticeship

Mentoring can be defined as the existing relationship between an expert and a novice with the sole purpose of the former guiding the latter to come to speed whereas apprenticeship entails the implementation of a planned learning program to impart skills and knowledge via hands-on practice and training. According to Bryant (2005), training program organized for peer mentors tend to ameliorate the perceived levels of knowledge and abilities among peer mentors and mentees. When employees are mentored by their peers, higher levels of knowledge generation and sharing are attained.

Coaching

Coaching is a growth process where a coach assists a coachee in attaining set goals through the provision of counselling, teaching, and helping their learning and progress, mostly through a structured, goal-oriented approach. Mavuso (2007) opines that coaching and mentoring are not the same. He is of the view that mentoring is done by two committed individuals whereas coaching might not be done necessarily by two committed individuals.

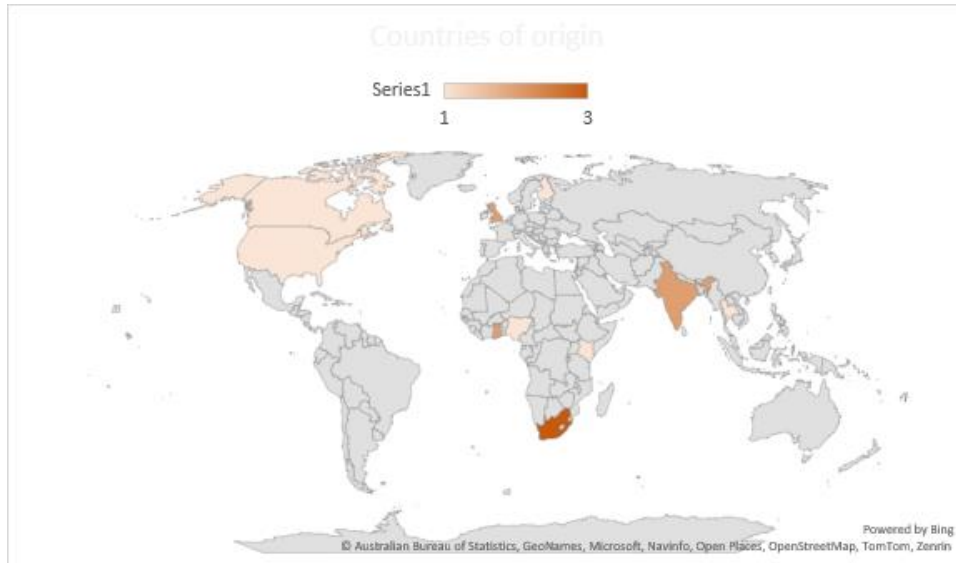
Communities of Practice (COP)

A COP refers to a group of individuals who are bonded by a common interest, profession, or goal. Members enhance skills and knowledge base through regular interactions and collaboration to provide solutions to identified problems while sharing best practices. Kislov et al. (2012) suggest that professional restrictions between general practitioners, practice nurses, and practice managers who co-sited in similar practice for a substantial amount of time could be efficaciously navigated notwithstanding the knowledge and status differences, resulting in the formation of multiprofessional CoPs.

Regions

The review identifies areas where KMS related studies have been conducted. Figure 1 demonstrates a map of such countries.

Figure 1.0 Map of countries of origin



Source: Author’s construct 2023

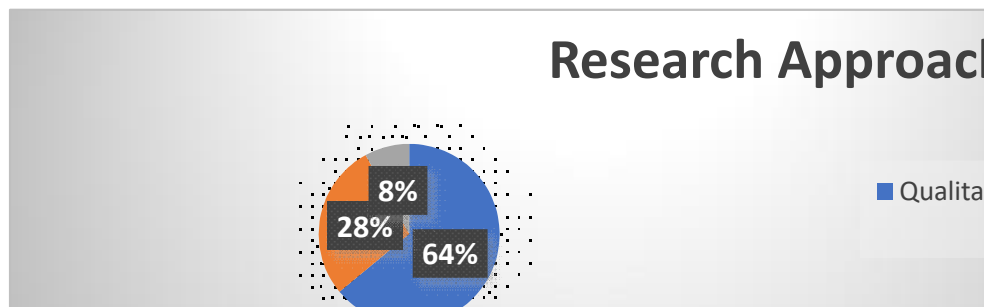
More research on KM strategies has been conducted in Asia and Africa than in any other region. A few projects have been completed in Australia, the Americas, and Europe.

The knowledge management industry is anticipated to continue expanding and evolving from a global perspective. Organizations are playing an increasingly vital role in developing strategic knowledge management techniques, as the transfer of information becomes an essential component of business processes worldwide.

Research conducted in diverse geographic contexts can yield valuable insights applicable to the development of contemporary knowledge management (KM) methods that deliver tangible outcomes. A more comprehensive approach to KM can be achieved by adopting and implementing lessons learned from one location to another.

Arguably, there is a widespread commitment to developing knowledge economies, as evidenced by the international focus on research related to coaching, mentorship, and apprenticeship as KM techniques in businesses. Collaboration, cross-cultural understanding, and the sharing of best practices are encouraged, particularly since most KM-related studies have been conducted in Asia and Africa. This global perspective ultimately promotes KM techniques and reinforces the notion that information is a strategic organizational asset that can be leveraged worldwide.

Figure 2.0 Research Approaches adopted in the reviewed articles



Source: Author’s construct 2023

The data offers insights into the research methodologies employed in the reviewed articles. Of the articles examined, 32 utilized a qualitative approach. The research designs, data collection methods, and research paradigms employed in these 32 articles included semi-structured interviews, standard interviews, case studies, content analysis, documentary analysis, direct observation, participatory

observation, literature surveys, grounded theory, theoretical reviews, literature reviews, systematic reviews, extensive literature scanning, searches of electronic databases, interpretive case studies, interpretivist approaches, and social constructivist approaches. Fourteen articles reviewed adopted a quantitative approach. The research design and data collection methods included the administration of questionnaires, structured surveys, and quasi-experimental designs. Four of the reviewed articles employed a mixed-methods approach, utilizing research designs and data collection methods that consisted of questionnaire administration, observations, interviews, and the analysis of institutional documents.

Discussions and conclusions

Organizations should apply knowledge effectively to generate both economic value and social good. Members should acquire intangible talents in addition to traditional soft skills and explicit knowledge (Bierly, Kessler, and Christensen, 2000; Rowley, 2006; Nonaka and Takeuchi, 2019). Over the past 23 years, numerous articles on KM have been published; however, there appears to be a lack of literature addressing coaching, mentorship, and apprenticeship as KM strategies within organizations. The public sector in Sub-Saharan Africa suffers from inadequate knowledge retention measures. For instance, the University of Zambia (UNZA) has faced challenges related to succession planning, coaching, mentorship, and training and development aimed at acquiring expertise specific to the profession (Dewah and Mutula, 2016).

In their research, Ramjeawon and Rowley (2018) found that while most participants in their study of KM in higher education institutions in Mauritius were familiar with the term, their institutions lacked a documented KMS. Given the complexity of KM's impact, support from upper management, knowledge sharing, and organizational culture are essential, according to Martensson (2000).

A study by Conway (2007) analyzed a case study in which Brent aimed to create a workforce that better represents the community it serves. Women in middle management positions were notably underrepresented. To address this issue, the Opportunity 2000 Group established a mentorship program exclusively for female middle managers. These women were paired with male mentors, in addition to a few female mentors. According to the council, research and the real-world experiences of numerous organizations have shown that formalizing male mentorship for women can help eliminate some of the barriers that prevent women from reaching top positions and advancing in their careers. It is important to note that coaching and mentoring are not the same. One key technique for knowledge transfer is mentoring, which can be conducted either in person or electronically. The emerging trend is to conduct mentoring sessions electronically. Typically, two dedicated individuals engage in the mentoring process (Mavuso, 2007), especially when it occurs outside of an organizational context. Mentoring can take place within various contexts, including personal-professional relationships, educational processes, organizational cultures, global settings, and systemic reform plans aimed at developing human capacity. Theoretical mentoring frameworks navigate this complex definitional landscape. Mentoring, as described by Mullen and Klimaitis (2019), is characterized by profound and equitable learning that has the potential to influence society.

In Ghanaian universities, the concept of KM is widely recognized. Effective KM processes utilize various systems and tools, including the internet, intranet, email, mobile technology, and DVD/VCD/CD formats, to enhance knowledge management within these institutions. Communities of Practice (COPs) serve as an additional valuable KM resource. However, it remains unclear how complex practice landscapes, characterized by multiple COPs, influence knowledge exchange both within and between organizations, particularly regarding the implementation of service improvement programs in primary care (Kislov et al., 2012). COPs can foster collaborative learning by leveraging both codified and tacit knowledge. The emerging notion of COPs as a strategy for knowledge transmission emphasizes the sharing of information that is often implicit in nature (Krishnaveni et al., 2012). An increase in the sharing of experiences would facilitate employees' ability to articulate tacit knowledge into explicit concepts through the use of metaphors and analogies (Chou et al., 2005).

Through knowledge-based remuneration policies, information technology practices, and strategic management of knowledge and competencies, firms can enhance their innovative performance (Inkinen et al., 2015). Information and Communication Technology (ICT) has become an essential tool for collecting, organizing, and disseminating data daily. Thanks to ICT, employees can easily share both new and existing knowledge through information systems, which significantly contributes to workplace improvement (Govender et al., 2018). Overall, practitioners generally exhibit positive attitudes and motivations toward knowledge sharing.

However, time constraints stemming from their busy and demanding workloads represent the most significant obstacle to this process. Additional barriers include a competitive work environment, insufficient proactive management strategies, inadequate IT infrastructure, unclear responsibilities and budget allocations, among others (Sik-wa and Chu, 2006).

The future of business success depends on how effectively organizations can implement KM techniques and strategies to enhance productivity and foster innovation. Ojo (2016) conducted a study on KM practices in Nigerian universities, developing a conceptual model that delineates the steps necessary for implementing KM techniques. These steps include knowledge identification, storage, sharing, application, and assessment. Universities can utilize this model as a framework to guide their KM initiatives and efforts.

To promote best practices and identify effective strategies, a KMS in a higher education setting should leverage the institution's people, procedures, technologies, and organizational structure. Similarly, Petrides and Nguyen (2006) argue that essential components of successful KM projects include a culture of information sharing, a reward system, and an environment that fosters information-based decision-making.

In conclusion, mentoring-based relationships have stood the test of time and are likely to continue growing and multiplying. Six of the most common methods for acquiring tacit knowledge include in-person interactions, expert interviews, storytelling, mentoring, apprenticeship, and socialization (Nonaka and Takeuchi, 2019). Organizations must develop comprehensive written KM strategies that are implemented organization-wide. This study supports the assertion that a KMS is essential for enhancing organizational performance and fostering innovation. Future research should delve deeper into the challenges posed by mentorship theories, KM models, lived experiences, and real-world contexts. A critical question to explore is the significance of mentoring within the close relationships examined in this study. Additionally, further experimentation with mentoring alternatives, such as e-coaching and e-mentoring, utilizing updated frameworks from practical knowledge, is necessary.

Limitation and direction for future research

This review focused on articles related to KMS, coaching, mentoring, apprenticeships, and COPs. Future studies could explore technology and KM strategies such as e-coaching, e-mentoring, and e-apprenticeships.

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