



Knowledge Management and Cooperative Sustainability: A systematic literature review

Nor Aliah Abdullah¹, Safawi Abdul Rahman^{1*}, Mohd Razilan Abd Kadir¹, Mohd Ridwan Seman¹,
Nooraslinda Abdul Aris², Mohd Shahron Anuar Said³

*Corresponding Author

- ¹ School of Information Science, College of Computing, Informatics and Mathematics, Universiti Teknologi MARA, Puncak Perdana Campus of UiTM Selangor, 40150, Malaysia
- ² Faculty of Accounting, Universiti Teknologi MARA, Puncak Alam Campus of UiTM Selangor, 42300 Bandar Puncak Alam, Selangor, Malaysia
- ³ Institut Koperasi Malaysia, 103 Jalan Templer, Petaling Jaya, Selangor Malaysia

safawi@uitm.edu.my, nraliahabdullah@gmail.com, mrazilan@gmail.com, mridwan@uitm.edu.my, nooraslinda@uitm.edu.my, shahron@ikma.edu.my
Tel: +6019 - 6864145

Abstract

We propound that effective knowledge capture, sharing, and utilization within cooperatives are potent catalysts for sustainable practices. Through collaborative knowledge creation, cooperatives can innovate solutions to environmental challenges, efficiently manage resources, and foster social equity. Conversely, a sustainable environment and empowered communities provide fertile ground for knowledge production and circulation within cooperatives, creating a virtuous cycle of shared prosperity. Understanding and harnessing this symbiotic relationship between knowledge management and cooperative sustainability is critical to building a resilient and thriving future for all. 72 articles were identified, and 6 out of 72 were ultimately chosen for the analysis process. This systematic literature review aims to determine the current evidence regarding the knowledge management practice contribution towards cooperative sustainability.

Keywords: Knowledge management practice, Cooperative sustainability, Systematic literature review.

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1.0 Introduction

In today's dynamic and rapidly evolving business landscape, cooperatives play a crucial role in fostering sustainable development by promoting collective ownership, democratic decision-making, and equitable distribution of resources. As cooperatives continue to grow in importance, the need for effective knowledge management becomes increasingly evident (Naldi F. et al., 2023). This systematic literature review aims to identify the current evidence regarding the knowledge management practice contribution towards cooperative sustainability. Cooperatives, by their very nature, operate on principles that align with sustainable development goals, such as social responsibility, environmental stewardship, and economic resilience (Deans, P., 2019). They strive to achieve long-term viability by fostering collaboration and shared learning among their members. On the other hand, knowledge management involves the systematic capture, creation, sharing, and application of knowledge to enhance organizational performance and innovation. In this context,

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combining knowledge management and cooperative principles presents an intriguing prospect for sustainable growth and resilience (U-Durar S. et al., 2023).

The evolution of knowledge management practices within cooperatives has been closely intertwined with technological advancements. Over the years, the rise of digital transformation has enabled cooperatives to leverage cutting-edge tools and platforms, such as cloud-based knowledge repositories, collaboration software, and artificial intelligence-driven analytics. This integration of technology has streamlined knowledge sharing, breaking down geographical barriers and fostering a culture of continuous learning within cooperative networks (Alliou, H., & Mourdi, Y., 2023). One of the prominent ways knowledge management has contributed to cooperative sustainability is by improving decision-making processes. As cooperatives typically operate in complex and often uncertain environments, access to relevant and timely information is crucial for making informed choices. By facilitating the storage and retrieval of critical knowledge, knowledge management empowers cooperative members and leaders to make data-driven decisions, thereby enhancing the overall resilience and adaptability of the cooperative enterprise.

Furthermore, knowledge management has played a crucial role in fostering innovation and fostering a learning culture within cooperatives. The growth of knowledge from both successes and failures enables cooperatives to build upon past experiences, leading to the development of new solutions and best practices (Lam, L., Nguyen, P., Le, N., & Tran, K., 2021). By promoting a culture of continuous improvement, knowledge management enhances the cooperative's capacity to tackle challenges and capitalize on emerging opportunities, thus contributing to its long-term sustainability. Additionally, knowledge management has been instrumental in strengthening cooperative partnerships and collaborations. As cooperatives often form networks and alliances, efficient knowledge sharing becomes essential for successful cooperation. By facilitating the exchange of expertise, lessons learned, and innovative ideas, knowledge management fosters a sense of interdependence and mutual support among cooperatives. This collaborative approach not only enhances the sustainability of individual cooperatives but also contributes to the overall resilience and impact of the cooperative movement as a whole.

This systematic literature review will be discussed in a methodology review, describing results and discussion. The review will end by emphasizing the research contribution as well as making recommendations and valuable guidance for cooperative leaders, researchers, and policymakers seeking to drive sustainable development through effective knowledge management practices. This systematic literature review procedure is divided into three stages, which are planning, execution, and reporting.

2.0 Material and methods

This review study is based on the systematic review technique proposed by Chitu Okoli & Kira Schabram (2015). Our paper aims to provide a clear and comprehensive overview of how effectively managing knowledge contributes to the long-term success and resilience of these cooperative's sustainability.

Procedure 1: Planning

At this planning stage, there are three primary activities: defining the need for a review, establishing the review methodology, and developing a research question. To begin the research, a research question based on knowledge management and cooperative sustainability has been established. The resulting formulated question is as follows: "How do knowledge management practices contribute to the cooperative's sustainability?"

Procedure 2: Execution

The second vital stage is execution, where the search technique begins by identifying key terms associated with the research question. We conduct a keyword analysis to find other spellings and synonyms for the search phrase. Moreover, Boolean operators "AND" and "OR" have been used in order to construct the search strategy. The search phrase was designed to discover studies on knowledge management and cooperative sustainability, which are listed below:

Table 1: Search string

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("knowledge management" OR "knowledge management practice" OR "knowledge management application" OR "knowledge resource" OR "knowledge management initiative" OR "knowledge sharing" OR "knowledge sharing" OR "knowledge exchange")
AND
("cooperative" OR "cooperative" OR "co-op" OR "cooperative movement" OR "cooperative institution" OR "cooperative organization")
AND
("sustainab*" OR "tenable" OR "well-grounded" OR "maintainable")
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The following step is to begin searching and retrieving through the three electronic journals, which are Scopus, Web of Science, and Google Scholar. In this process, we select the article from any publications, and the selection criteria are as follows:

- The paper must be written in English.
- The paper must be related to the areas of social sciences, business, management and accounting, environmental science, multidisciplinary, agricultural and biological sciences, economics, econometrics, and finance.
- The paper must be an article and conference paper only.
- The paper type must be in journal and conference proceedings.
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Any paper that does not fit the inclusion criteria above will be excluded. The search of the articles began on 25th July 2023.

As a result, the quality of the papers was then evaluated to ascertain their reliability, relevance, advantages, and completeness. This study conducted the scoring technique where there is a score as follows: "Yes" = 1, "No" = 0 to each of the questions as an answer. Four research questions were created in order to accomplish this goal, as shown in Table 2.

Table 2. Quality Assessment Criteria

Quality Assessment		
QA	Answer	Yes/No
QA1	Is it possible to retrieve the full version of the published study?	Yes/No
QA2	Does the published study implement knowledge management practices?	Yes/No
QA3	Is a cooperative institution involved in this published study?	Yes/No
QA4	Does the published study explain how knowledge management practices contribute to a cooperative's sustainability?	Yes/No

Procedure 3: Reporting

This stage of systematic literature review will be discussed in Finding and Discussion.

3.0 Findings and discussion

3.1 Reporting

72 articles have been discovered through the use of the search string. Only related articles are selected, and those articles that are not related or duplicated are excluded from the screening process. All articles that comply with the criteria set for inclusion are selected, screened, and reviewed using the quality assessment mentioned in Table 2. Out of 72 articles, 6 articles met the requirements to be examined for the analysis step.

The 6 articles were studied to synthesize data by applying exclusion criteria and then analyzing the in-depth summaries and contents for each article, as shown in Table 4. The overview of the score for the 8 articles (A1-A6) can be view in Table 3 where the articles chosen based on quality assessment criteria in Table 3.

Table 3. Quality Assessment Criteria Score

Articles	QA 1	QA 2	QA 3	QA 4	Total Marks
A1	1	1	0	0	2
A2	1	0	1	0	2

A3	1	1	1	0	3
A4	1	1	0	0	2
A5	1	1	1	1	4
A6	1	1	1	0	3

As for the quality assessment criteria categories, this study implements four (4) types of filtering categories, which are very good, good, poor, and extremely poor, as the indicator in Table 4. The quality assessment results were then used to calculate the quality scores for these articles. Therefore, the findings show that each of the selected papers had a quality rating score that was deemed acceptable. 1 out of 6 articles, or 16.7%, have been rated as very good quality, and 3 articles, or 83.3%, were rated as good quality.

Table 4. Quality Assessment Criteria Categories

Quality Indicator	Very good (3-4)	Good (2-<3)	Poor (1-<2)	Very Poor (<1)	Total
Number of articles	1	5	0	0	6
Percentage (%)	16.7%	83.3%	0	0	0

Although a total of 72 articles were discovered, just 8 were chosen to be the final publications, as mentioned earlier. The 6 chosen articles were obtained from their respective databases, stored, and categorized for the purpose of examining their scientific attributes. This process involved a meticulous review of all the papers, extracting valuable information, and analyzing their references to gain deeper insight into the specific field of each study. The summary of the article distribution is shown in Table 5.

Table 5. Summary of article distribution based on database journal

Database Journal	No. of Articles Found	Category	
		Journal	Conference
SCOPUS	4	4	-
Web of Science	2	2	-
Google Scholar	0	-	-
Total	6	6	-

3.2 List of knowledge management practices based on the articles

According to Table 5, not many studies have been done to examine and determine the knowledge management practices that contribute to cooperative sustainability. Out of 6 articles, only one article concentrates on this topic. Thus, this article is fulfilling the research gap in recognizing the knowledge management practices that contribute to a cooperative's sustainability.

Table 6. Knowledge management practices

Article	Authors	Type of cooperative	Knowledge management practices	Contribution to the cooperative's sustainability
A1	Habiyaremye, A. (2021)	Business	Knowledge sharing	Yes
A2	J. Gutberlet (2023)	Environment	Knowledge sharing	No
A3	Ying Yang et al. (2021)	Agricultural	Knowledge sharing	No
A4	Cugueró-Escofet N. et al (2019)	Business	Knowledge sharing	No
A5	Hadjielias, E et al. (2023)	Business	Knowledge management	Yes
A6	Albizua A. et al. (2020)	Environment	Knowledge exchange	No

3.2 Summary of Knowledge Management Practices that Contribute to Cooperatives' sustainability

Based on Table 6, 4 types of fields of study have been identified and discussed in the 6 selected articles, such as business, environmental, and agricultural. Out of 6 studies, 4 implemented knowledge sharing, 1 implemented knowledge exchange, and 1 implemented knowledge management practices, which consisted of creation, storage, and leveraging.

The contribution of knowledge management practices toward a cooperative's sustainability has been identified by Hadjielias E et al. (2023). In the study conducted by Hadjielias, E et al. (2023) stated in the study that implementing knowledge management practices balances environmental integrity, social equity, and economic prosperity, contributing to the cooperative's sustainability. The article underscores the crucial role of knowledge management practices in supporting the sustainability of cooperatives in rural communities. It highlights the importance of building, sharing, and maintaining knowledge, as well as fostering collaborative relationships for creating value and maintaining equilibrium among institutions. The study emphasizes the interconnected processes and mutual engagements between family businesses, cooperatives, and rural communities, showcasing how knowledge co-creation and transfer mechanisms are fundamental to the sustainability of these interconnected entities. By explaining how knowledge management contributes to value creation, appropriation, and balance, the article provides valuable insights into how cooperatives use their knowledge infrastructure, technological capabilities, and human resources to generate and share economic and social value, ultimately contributing to the sustainability of the broader institutional ecosystem.

Meanwhile, Habiyaemye, A., 2021 emphasizes how cooperative learning and knowledge management practices are crucial for the sustainability of business entities, especially during crises. It points out that the success of cooperative learning in managing crises and building collective resilience relies on organizations committing to shared goals and establishing mutual trust. This trust, in turn, encourages network members to collaborate effectively for better outcomes. The article also stresses the need to customize problem-solving approaches based on the unique needs and circumstances of each organization involved. It suggests that interventions should be tailored to meet the specific requirements of each entity. Moreover, the study highlights that cooperative learning generates new knowledge and practices, strengthening organizations' capabilities to navigate crises and set the stage for post-crisis sustainability. In summary, the article highlights how cooperative learning and knowledge management practices enhance crisis resilience, facilitate knowledge exchange, and ultimately contribute to the sustainability of businesses.

Table 6 represents the identified type of cooperative and the existence of knowledge management practices toward cooperative sustainability that have been found in the recent literature. Most of the knowledge management is found in the business type of cooperatives (three articles), followed by environment cooperatives (two articles) and agricultural cooperatives (one article). The most remarkable finding from the data was that knowledge sharing appears to be the most influencing element in knowledge management practices in cooperative sustainability.

4.0 Conclusion and recommendation

In conclusion, this systematic literature review reveals a significant connection between knowledge management practices and the sustainability of cooperatives, particularly in business, environmental, and agricultural fields. The selected studies highlight the importance of knowledge sharing, exchange, and management in enhancing cooperative sustainability. Hadjielias E et al. (2023) specifically highlight the role of knowledge management in balancing environmental integrity, social equity, and economic prosperity, thereby contributing to the overall sustainability of cooperatives. Additionally, cooperative and knowledge management practices emerge as pivotal factors not only in crisis resilience but also in fostering a culture of continuous improvement, innovation, and collaboration within cooperatives.

To further advance cooperative sustainability, practitioners and policymakers should prioritize the integration of strong knowledge management systems. Emphasizing knowledge sharing mechanisms, particularly in crisis situations, can enhance the flexibility of cooperatives. Furthermore, the identified gaps in research, such as the limited focus on knowledge management practices in certain cooperative types, deserve future investigations. Policymakers should consider fostering an environment that encourages knowledge sharing and collaborative learning among cooperatives, aligning with sustainable development goals. Additionally, investing in technological advancements to facilitate knowledge management can significantly benefit cooperative networks, fostering long-term viability. However, not much research has been done focusing on this topic over time. We suggest that more research should focus on this topic, concentrating on knowledge management practices towards cooperative sustainability.

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