

The Dark Side of Knowledge Management: Why Does Fifth Generation Not Work Properly from an Accounting Perspective?

Mustafa Sağsan¹ and Dlovan Wrya Chaqmakhchi²

¹Department of Business Administration, European University of Lefke, Gemikonağı, North Cyprus

²Department of Business Administration, Cihan University-Erbil, Kurdistan Region, Iraq

Abstract— The accounting field has remained to explain itself in the context of tacit knowledge because only explicit knowledge is processed in the accounting field, which is embedded in knowledge management systems as accounting information systems. The main objective of this study is to clarify the hierarchy of knowledge, which consists of data, information, knowledge, and wisdom. Afterward, it should be understood correctly the processes of knowledge in organizations, called the knowledge management life cycle model, to separate knowledge management generations from the dark side perspective. Consequently, the paper emphasizes that the dark side of knowledge management based on the fifth generation is the accounting field due to the tacit knowledge capacity as well as the term of knowledge conception because understanding knowledge ecology, which takes place within the fifth generation, is very far from the accounting field.

Keywords— Dark side of knowledge management, fifth generation of knowledge management, knowledge hierarchy, knowledge management life cycle model, accounting field.

I. INTRODUCTION

Although knowledge management (KM) plays a crucial role in organizational settings, its dark side remains hidden or is not mentioned properly. Either the bright side or dark side, the KM discipline has successfully operated in all types of organizations, especially from one of the most important types of knowledge, called explicit (Jameel et al., 2022; Birdawod, 2022). This paper aims to explain the dark side of knowledge management concerning the fifth generation by emphasizing the role of the accounting field. The fundamental research question could be formalized as to why the accounting field does not fit with the fifth generation of knowledge management. According to Zack (1999), the codification strategy focuses on the explicit type of knowledge, and the personalization strategy meets the tacit knowledge in the context of the KM strategy. In parallel with these two types of knowledge, the fifth generation highlights more tacit than explicit knowledge, representing knowledge ecology and knowledge system. Therefore, the accounting field has remained to explain itself in the context of tacit knowledge because only explicit knowledge is processed in the accounting field, which is embedded in knowledge management systems as accounting information systems.

To make a clear explanation of KM upon the generations, the knowledge definition should be understood at a glance, given below under the title of hierarchy of knowledge. Afterward, the role of knowledge in organizations should be considered from the management perspective, which underlines the name of processes as it is called knowledge management life cycle model. Therefore, KM will be evaluated by the generations that describes the important keywords of knowledge management discipline and development (Jameel et al., 2021; Al-Delawi & Ramo, 2020). Finally, the accounting field in relation to the fifth generation of knowledge management will be discussed as the dark side of knowledge management and will be put forward some of the implications in the context of KM development in organizations. Upon the explanation above, the fundamental objective of the study is to address the role of accounting study in knowledge management generation, especially in the fifth generation and is to clarified why accounting study remains at the fifth generation.

II. LITERATURE REVIEW

2.1. Hierarchy of Knowledge

The concept of knowledge should be defined clearly and correctly to understand the knowledge management discipline. Knowledge hierarchy helps us to make differences among data, information, knowledge, and wisdom.

Figure-1. Hierarchy of knowledge (K-hierarchy)

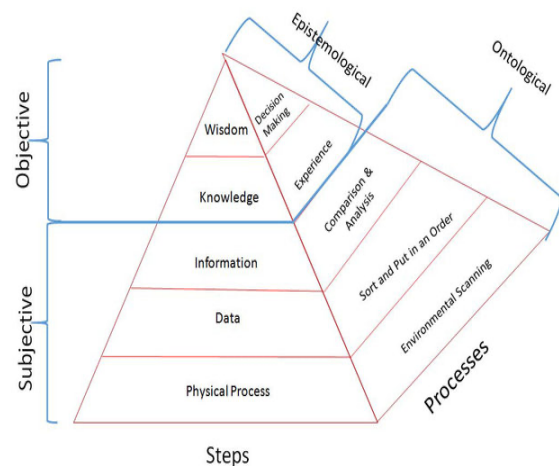
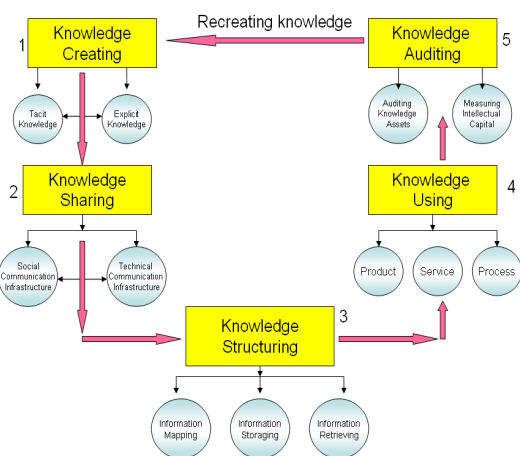


Figure 1 above mentions the role of knowledge within the hierarchy of knowledge, which derives from individuals' values, beliefs, attitudes, and behavior. The employee's experiences are hidden in both explicit knowledge and tacit knowledge. Knowledge is a subjective form, which could be evaluated from the epistemological dimension of k-hierarchy. The main reason is that knowledge is more valuable than data and information, which are assessed objectively and are gathered from the ontological dimension of k-hierarchy. Collected data can be categorized based on certain reasons and formulate information, which could be reached from everywhere, especially within the technological environment. However, individuals' skills, abilities, and competencies are necessary for obtaining knowledge and wisdom.

From the discipline of knowledge management perspective, managing knowledge requires focusing on processes such as creating, sharing, structuring, using, and auditing (Sağsan, 2006). Employees need knowledge after transforming data and information to create a competitive advantage in the workplace. That is why knowledge needs to be managed by employees to add contributions to organizational effectiveness, which is more valuable than data and information. Knowledge management life cycle model should be considered to understand the importance of knowledge in organizational settings at this point.

Figure-2. Knowledge Management Life Cycle Model (KMLCM)



In accordance with knowledge management literature, five basic processes can be considered for managing knowledge. These can be defined as creating, sharing, structuring, using, and auditing in turn which is called the “knowledge management life cycle” model. This model allows us to understand knowledge management processes in hierarchical order (Sağsan, 2006, p.15; Zaidan et al, 2024). Knowledge creation is the first step of KMLCM which consists of tacit and explicit knowledge. Tacit knowledge will be examined under the concept of tacit knowledge capacity (TKC) which formed up by the TKT and the tacit knowledge accumulation (TKA). The first part will examine the TKT where the second part will focus on the TKA. Knowledge transfer and knowledge

accumulation also can be perceived as knowledge donating and knowledge collecting (Cavaliere and Lombardi, 2015). In this study the term knowledge transfer used as transfer from tacit to explicit form which can also be called as ‘crystallisation’ whereas the term knowledge accumulation used for acquiring the explicit knowledge and converting it into tacit form to increase learning by doing aspect of the individuals (Nonaka et al, 2000). These two concepts can be grouped into the one category, called TKC (Kaya and Sağsan, 2015).

The second important stage of knowledge management life cycle is knowledge sharing. Çapar (2005), emphasizes the ways and tools for effective knowledge sharing as follows:

- formal social communication network,
- informal social communication network,
- teamwork,
- communities of practices,
- organizational learning,
- rumors and,
- formal structured technological communication networks (e-mail, mobile communications, teleconferences, videoconferences, etc.) (Sağsan, 2006).

Knowledge structuring categorizes data and information through certain types of classification tools and enables for retrieving this information timely. This means that mapping, storing and retrieving information are three important components of knowledge structuring and like knowledge structuring, knowledge using is also based on information technology. For this reason, if individuals would like to use information effectively, they firstly should be information literacy. Knowledge auditing means what amount of knowledge can be used in organization's products, services and processes. This knowledge management life cycle stage refers to the capacity of information processing in organizations. In other words, what amount of information and knowledge are created, shared, stored, and used in organization in a certain time helps us to determine information capacity in organizations (Sağsan, 2006).

KMLC could be applied in medium and large-scale organizations as well as trained at universities in bachelor, master, and PhD programs. This discipline is characterized by some of the important sciences, such as library and information science, business administration, economy, cognitive science, psychology, sociology, computer science, engineering science, technology science etc. Therefore, four fundamental paradigms must be well-thought-out: (1) technological, (2) socio-technical, (3) inter intra-organizational and (4) humanist paradigm (Sağsan, 2009).

2.2. Fifth Generation of Knowledge Management

Knowledge has been valued in different types of organizations, at different times, and in different ways. Sometimes it has merged with technology, sometimes it has become the most important asset of the organization, and sometimes it has been the most important driver of culture. This differentiation in knowledge has led to it being referred to in different generations at different times.

Table-1. Five Generations of Knowledge Management for Development

Generation of KM4D				
1-ICT-Based	2-Organisation - based	3-Knowledge sharing-based	4-Practice based	5-Development knowledge system/ecology
Identifying concepts				
Knowledge as a commodity	Knowledge as an asset with in organization	Sharing knowledge between organization	Knowledge processes embedded in organization processes	Cross-domain knowledge integration and knowledge co creation
Features				
ICTs Databases Portals Cleaning houses	KM audits KM scans Explicit and tacit knowledge	Peer Assist Case students Best practices Inter-organization communities of practice	Role of social media People centric Practice based	Multiple knowledge Multi-stockholder processes

As the above Table-1 indicated that the fifth generation of KM4D is identified as the 'development knowledge system' or 'development knowledge ecology' (see Cummings, Pels and Powell 2011 for a description of the characteristics of the development knowledge ecology) which emphasizes the linkages between the different elements of the system. This generation of KM4D is characterized by the following:

1. A growing awareness of multiple knowledges and multi-stakeholder processes in the
2. Solution of 'wicked problems.
3. Recognition of the importance of the development of knowledge as a global public good and of
4. The development knowledge commons.
5. understanding the role of knowledge in endogenous development.
6. An increasing emphasis on cross-domain interactions and knowledge co-creation; and
7. Recognition of the importance of complexity and emergence (Cummings, et al, 2013, p.23).

The characteristics of the fifth generations of knowledge management can be learned from transdisciplinary approaches in terms of its theoretical underpinning; contribution of new knowledge; an emphasis on the wider systemic issues of knowledge; methodological approaches; and knowledge integration and co-creation (Cummings et al, 2013, p.10).

Both the fourth and the fifth generations of knowledge represent the key features of a transdisciplinary approach. For example, knowledge processes and people-centric of knowledge try to find out a solution for the real-world problem, which is one of the most important characteristics of transdisciplinary research. Multiple actors, which is another face of the transdisciplinary approach, is based on the sub-disciplines of knowledge management as it is mentioned above (Massoudi & Birdawod, 2023). Knowledge is having a multi-domain integration that consists of stakeholders, partners, and communities of practice within the fifth generation in the

context of the last transdisciplinary method. Accordingly, each generation has its own special appearances, which start from the technology level, and continue organization level, knowledge processes, knowledge practices, and finishes knowledge ecological level. Undoubtedly, there are both bright and dark sides among the generations that will be focused on the following section.

2.2.1. Dark Side of Knowledge Management

The dark side approach does not have a negative meaning. Instead, it refers to an unpleasant situation or harmful attitude. This section will concentrate on the dark side of knowledge management that causes unpleasant circumstances.

Fallacies also indicate the dark side of knowledge management. For instance, beginners of knowledge management, who suppose that KM is not a one-time investment, misunderstand the KM project. It is a project that must be an ongoing investment because of knowledge processes. Those who misunderstand knowledge management think that it is a technology problem. However, knowledge management is not only a technology problem, but also a management problem as well as not only refers to information engineering but also includes organizational culture problems (Massoudi, 2024).

According to Alter (2006), the dark side of KM, unethical motives engender at least three types of goals in decisions related to capturing and using knowledge:

- Distortion: Introduction of biases by selecting, combining, and/or manipulating specific knowledge to represent that knowledge in a way that is favorable to particular interests, viewpoints, or beliefs.
- Suppression: Creation of obstacles and prohibitions that make it difficult or impossible to create, access, or use knowledge that might be contrary to particular interests.
- Misappropriation: Theft, modification, or inappropriate revelation of knowledge (Alter, 2006, p.2).

Bias has played a very skeptical role in deciding the individual level. Therefore, an individual's frame of reference, experiences and values, beliefs, attitudes, and behaviors strongly affect the distorting of knowledge. From the knowledge creation perspective, a limited informal

environment within the organizational setting is a big barrier. Additionally, individuals hesitate to share their knowledge because they risk stealing their knowledge in the workplace and losing their competitive advantage.

Table-2. Tactics on the dark side of knowledge management

Creation, Acquisition and refinement of knowledge	purposeful failure to collect relevant knowledge coding of knowledge with intention of misleading Analysis performed in way that purposefully introduces bias.	Failure to allocate funds or personnel needed to collect relevant knowledge Correction by implying or threatening personal consequence if an analyst or individuals work dose not represent specific biases.	Theft of knowledge as it is being created or refined. Modification or sabotage of a knowledge refinement process.
Storage and retrieval of knowledge	Storage of knowledge in a way that is likely to cause distribution Retrieval of knowledge using methods that distort the knowledge	Destruction of existing knowledge Refusal to allow access to existing knowledge Storage knowledge in from or location that purposefully impedes legitimate access Failure to retrieve knowledge that should be possible to retrieve.	Modification or storage of existing knowledge. Insertion of inappropriate content into knowledge that is being retrieved
Distribution and presentation of knowledge	Use of euphemism or inaccurate characterizations that misrepresent the essence of specific knowledge Distributions of knowledge biased by omission or rewording of relevant material: Exaggeration or overemphasis of less relevant knowledge. Misrepresentation of facts, motivated by personal, economic, or political benefits.	Supper of distribution by declaring existing knowledge secret Correction by implying or threating personal consequence if specific knowledge is divulged. Establishing deniability for decision maker by making sure they never learn about details that might be embarrassing or illegal. Failure to present relevant facts motivated by personal, economic or political benefits	Failure to distribute important knowledge that is needed. Inappropriate, unethical or illegal distribution of information, thereby harming individuals, groups or organizations. Fraudulent or otherwise inappropriate sale or transfer of knowledge.

Chua (2009) emphasizes the successful KM initiatives from a typological framework for the dark side. Four important elements should be considered for overcoming the dark side problem of KM initiatives as benefiting from the four different cases (Chua, 2009, pp.37-38).

Table-3. A typological framework for the dark side of successful KM initiatives

Archetypes	Success	Darkside
KM proceeded by a pilot	The successful pilot	Competency trap led to tactless replications
KM with a technology	The efficacious	Hyperbolic discounting led to diminished

2.3. Why is the Accounting Field Not Remedy the Fifth Generation of Knowledge Management?

First of all, it could be argued that explicit knowledge is processed within the account information system in organizations. The meaning of knowledge can be supposed as information mistakenly. Thus, the information management field could provide some of the solutions from the KM perspective.

Although KM processes capability and KM infrastructure capability have a positive and significant impact on both institutional accounting practices and organizational performance, KM process has no impact on organizational performance in Malaysia (Ayodele, et al, 2021). Organizational accounting information systems do not aim to produce knowledge-based decisions in the context of KM capabilities. It gives an enormous data and information for designing an operational and tactical plan and program. However, according to the k-hierarchy (as indicated in Figure-1) knowledge is a personalized form that could be evaluated subjectively apart from the data and information. For this reason, the organizational accounting system allows institutions to create only data and information which helps departments to make their own operational and tactical decisions.

As for the fifth generation of KM, knowledge ecology refers to the knowledge again for the k-hierarchy as well as knowledge management system includes a series of management information system software programs such as accounting information system, human resources management system, document management system, et al.

The ecology of knowledge is a study of the relationship existing between humans and the body of knowledge. Knowledge is viewed in this theory as a distinct element of the human environment and a rapidly growing factor in human life (Wojciechowski, 2010). While knowledge in organizations is the result of a culture, data and information are the output of technology. Hence, knowledge is embedded in values, beliefs and attitudes as opposed to data and information representing knowledge systems that are based on technology and system structure.

Another important reason which is the dark side of knowledge management from the accounting field is decisions of accounting information systems. Djanegara et al (2018) argue that investment decisions of accounting information systems are influenced by institutional isomorphic pressures and knowledge management roles owned by organizations in Indonesia. Managers use accounting information systems to make short and mid-term decisions at the operational and tactical levels in organizations, apart from a strategic level which demands knowledge of the k-hierarchy. This level still remains the dark side of knowledge management from an accounting perspective.

One of the main objectives of knowledge management is to transfer tacit knowledge into explicit by using some information systems like accounting, management, human resources, supply chain, etc. Those systems allow organizations to turn data and information into knowledge however, without

employees, this does not work properly because of the lack of employee skills, abilities, competencies, values, beliefs, and behaviors. Hence, it cannot be denied that systems are not necessary for knowledge however systems are the basis for benefiting from the technology on the one hand, and using those technologies gives rise to increase the knowledge capability. The accounting system is only one of those information systems that can help organizations increase data and information capabilities instead of a knowledge development strategy. The word "dark side" is again paying attention to understanding the importance of k-hierarchy in organizations.

III.REMARKS INSTEAD CONCLUSION

1. For an effective knowledge management strategy, once again grasp the importance of the knowledge hierarchy in organizations and constantly emphasize the difference between data, information, and knowledge!
2. Focus on the developmental stages of knowledge management and thoroughly understand the expectations of the fifth generation of knowledge management! Do not forget that knowledge focuses on the individual form of values, beliefs, attitudes, and behaviors.
3. Don't overlook the misconceptions of knowledge management! Each misconception will bring you one step closer to a correct understanding of knowledge management.
4. The field of accounting deals with data and information. Therefore, it focuses on the explicit type of knowledge. This field forms the basis of an effective knowledge management strategy. In this respect, it serves the dark side of knowledge management.
5. The fifth generation of knowledge management is more concerned with the ecology of knowledge. This field requires a strategy based on a completely individual perspective. However, the accounting field underlines an objective dimension of knowledge hierarchy and it is interweaved with technology. Therefore, objective reality is only included in the second and third generation of knowledge management in an applicable knowledge management strategy.

REFERENCES

- Alter, S. (2006). Goals and tactics on the dark side of knowledge management, Proceedings of the 39th Hawaii International Conference on System Sciences, DOI: 10.1109/HICSS.2006.196.
- Al-Delawi, A. S., & Ramo, W. M. (2020). The impact of accounting information system on performance management. *Polish Journal of Management Studies*, 21(2), 36-48.
- Ayodele, O.F., et al (2021). Knowledge management and organizational performance: the neglected role of institutional accounting practices, *International Journal of Business and Society*, 22(3), 1639-1655 pp.
- Birdawod, H. Q. (2022). Using factor analysis to determine the most important factors affecting student absenteeism at Cihan University-Erbil. *Cihan University-Erbil Scientific Journal*, 6(2), 1-8.

- Çapar, B. (2005). "Bilgi Yönetimi". Bilgi Çağı Bilgi Yönetimi ve Bilgi Sistemleri içinde. (Ed. Coşkun Can Aktan ve İstiklal Y. Vural). (175–195). Konya: Çizgi Kitabevi.
- Cavaliere, V. and Lombardi, S. (2015) 'Exploring Different Cultural Configurations: How Do they Affect Subsidiaries' Knowledge Sharing Behaviors?', *Journal of Knowledge Management*, vol. 19, no. 2, pp. 141-163.
- Chua, A.Y.K. (2009). The dark side of successful knowledge management initiatives, *Journal of Knowledge Management*, 13(4), 32-40pp. DOI 10.1108/13673270910971806
- Cummings, S., B.J. Regeer, W.W.S. Ho and M.B.M. Zweckhorst. (2013). Proposing a fifth generation of knowledge management for development: investigating convergence between knowledge management for development and transdisciplinary research. *Knowledge Management for Development Journal* 9(2): 10-36.
- Cummings, S., M. Powell and J. Pels (2011) Development knowledge ecology: metaphors and meanings. *Knowledge Management for Development Journal* 7(1) 125-135.
- Djanegara, M.S.; Mulyani, S.; Putra, D.M.; Zahra, N.A.K. and Mauludina, M.A. (2018). The effect of institutionalization isomorphic pressures and the role of knowledge management on investment decisions of the accounting information systems, *Polish Journal of Management Studies*, 18(2), 46-58 pp.
- Jameel, A. S., Massoudi, A. H., & Ahmad, A. R. (2022, July). Motivational Elements of Online Knowledge Sharing Among Employees: Evidence from the Banking Sector. In *International Conference on Information Systems and Intelligent Applications* (pp. 491-501). Cham: Springer International Publishing.
- Jameel, A. S., Massoudi, A. H., & Agha, A. M. Q. (2021). Knowledge sharing among academic staff in the higher education institution. *Cihan University-Erbil Journal of Humanities and Social Sciences*, 5(1), 67-74.
- Kaya, T., and Sagsan, M. (2015). The impact of tacit knowledge capacity on social media: empirical research on physicians in north Cyprus. In *12th International Conference on Intellectual Capital, Knowledge Management and Organizational Learning* (pp. 133-141).
- Massoudi, A. & Birdawod, H. (2023). *Cihan University-Erbil journal of Humanities and Social Sciences*, 7(1), 1-10.
- Massoudi, A. (2024). The Mediating Effect of Occupational Stress between Paradoxical Leader and Compulsory Citizenship Behavior, *Journal of Organizational Studies and Innovation*, 11(3), 1-17.
- Nonaka, I., Toyama, R. and Konno, N. (2000) 'SECI, Ba and Leadership: a Unified Model of Dynamic Knowledge Creation', *Long Range Planning*, vol. 33, pp. 5-34.
- Polanyi, M. (1969) *Knowing and Being: Essays by Michael Polanyi*, London: Butler and Tanner Ltd.
- Sağsan, M. (2003). The cognitive dimension of tacit knowledge based on HIP and SIP: Can it be managed by CEO?. 3rd European Knowledge Management Summer School, Knowledge Management in Action, 7-14.
- Sağsan, M. (2006). A new life cycle model for processing of knowledge management. In *2nd International Congress of Business, Management and Economics* (pp. 15-18).
- Sağsan, M. (2009). Knowledge management discipline: Test for an undergraduate program in Turkey. *Electronic Journal of Knowledge Management*, 7(5), pp627-636.
- Sağsan, M. (editor). (2010). *Bilgi Yönetimi Disiplini ve Uygulamaları: Kamu Kurumundan Örneklerle*. Ankara: Siyasal Kitabevi.
- Tiwana, A. (2002) *The Knowledge Management Tool Kit*, 2nd edition, Harlow: Pearson Education Limited.
- Wojciechowski, J. A. (2010). *Ecology of Knowledge*, 2nd edition., Washington: Council for Research in Values and Philosophy.
- Zack, M. (1999) *Developing a Knowledge Strategy*. *California Management Review*, 41, 125-144. <http://dx.doi.org/10.2307/41166000>
- Zaidan, M. N., Hamdi, S. S., Birdawod, H. Q., & Agha, A. M. (2024). Factors Influencing Innovation Management in Iraq's Small-and Medium-sized Enterprises. *Cihan University-Erbil Journal of Humanities and Social Sciences*, 8(1), 126-132.