Knowledge Management Yesterday and Tomorrow: Exploring an 'Intellectual Paradox'

Alexslis MAINDZE[1] , Ian JENNIONS and Zakwan SKAF
Integrated Vehicle Health Management (IVHM), Cranfield University

Abstract. Knowledge management continues to be characterized by strong contextual application with diversity of techniques, tools and applications which practitioners far and wide seem to agree and adopt. However, when it comes to its philosophical distinctness, it is yet to achieve something as seemingly easy as a common definition. There is significant agreement on fluidity and methods of application but limited consensus on philosophical interpretation. Furthermore, that we know what it is, acknowledge its impact, functional relevance and yet cannot articulate a common methodology points to what this paper terms an '*intellectual paradox*'.

An intellectual paradox is the phenomenon whereby professionals and academics acknowledge a concept, practice it, write about it, and promote its relevance individually but as a collective lack a consensus on exactly what it is. This paper seeks to explore this phenomenon in detail and to propose a philosophical framework. It further explores the role of the traditional composition; people, process and technology in sustaining this suggested conundrum. This phenomenon seems to tie neatly with the tacit form of knowledge on the basis of the difficulty in articulating a common definitional framework of perception, though it could be argued that it is merely exhibiting characteristics of 'Tacit' knowledge management; thereby justifying the status quo. Some authors point to "*descriptive frameworks*" and insufficient addressing of learning including structural differences in organisations. This difficulty per some writers, results from the use of multiple and variable methods, tools techniques and strategies. Their alternative proposition views for a both 'descriptive and prescriptive' framework still did not yield a consensus either. This paper seeks to explore the problem and to propose a new definition.

Keywords. Knowledge Management, Intellectual Paradox, definition, contextual application, philosophical distinctness, limited consensus, common methodology

Corresponding author, [1] Alexslis Maindze, IVHM Cranfield University, College Road, Cranfield MK43 0AL, United Kingdom; E-mail: Alexslis.maindze@cranfield.ac.uk.

1.   Introduction

The significance of knowledge management (KM) as a highly treasured intangible asset in today's economy cannot be emphasized enough; not only has KM become a household name, it has also become the vital substructure for learning, growth, increased efficiency and effectiveness, and competitive advantage in all sectors of the economy [1–7]. Although the relevance of KM in today's business in propagating the concept of knowledge as a competitive resource remains firm in theory as well as in practice, it suffers from what we call an 'Intellectual Paradox'.

An intellectual paradox is the phenomenon whereby professionals and academics acknowledge a concept, practice it, write about it, and promote its relevance individually but as a collective lack a consensus on exactly what it is. Academics and practitioners broadly agree on the diversity of techniques, tools and application regardless of fluidity and context in their respective and individual functional spheres. However, when it comes to the question of collective or broad agreement on its definitional framework there is no consensus. It is this interaction between individualized consensual agreement on functional application and collective disagreement on definitional perception that creates the 'Intellectual paradox'. In other words, there is universal agreement on 'individual forms' and universal disagreement on 'collective structure' and is rooted in the KM history described in the next section.

2.   A Short History of Knowledge Management and the Birth of a Paradox

The initial introduction of the expression knowledge management (KM) can be traced to the mid-70s. In May 1976 [21] distinguished between data, information and knowledge. An "*effective knowledge management for an enterprise*" [21] required maintaining repositories files… and other resources [22] . However, it was not until 1983 that the phrase KM was again re-introduced by Charles Kellogg in [32] and [22]. In the latter, the phrase is mentioned seven times. KM gained more prominence with the introduction of the KM concept in 1986 by Dr. Karl Wiig at the United Nations [19, 23]. KM was further propelled into the academic and non-academic scene by Nonaka and Takeuchi [9] who studied the processes of organizational knowledge creation including dissemination using Japanese companies as case studies. They drew a distinction between explicit and tacit forms of knowledge and proposed a design which translates into people, process and technology; the trilogy that has dominated the expression of KM. In this this history to date, many perspectives on what KM is have emerged without any generating consensus.

3.   Definitional Perspectives and Problem

The definitional problem was identified by Fahey and Prusak [24] as number one in which they argued that it was "*… a critical error. Not developing a working definition of knowledge.*"*[24:265]* The alternative suggestion by this paper is that though they elaborated on the processes of knowledge creation, conversion and the requisite conditions for knowledge creation and the management of knowledge, they did not provide what some authors have described as a 'prescriptive' [25] definition of KM thus creating the foundations for lack of consensus.

Furthermore, Nonaka and Takeuchi [9] explained organizational knowledge creation as "…*The capability of a company as whole to create new knowledge, disseminate it throughout the organization, and embody it in products, services and systems."* [9:viii] This process was built on the spiral interaction between tacit and explicit forms of knowledge at individual, group and organization level. It was the amalgam of the continuous interaction between tacit and explicit knowledge and the conversion processes that they called knowledge creation (see figure1).
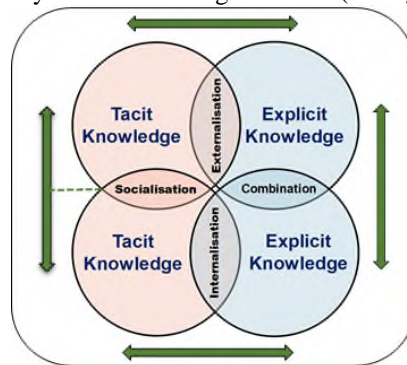

Figure 1. Organizational Knowledge Creation & Knowledge Conversion (interpreting [9])

The next section describes early attempts at addressing the definitional problem.

4. Earlier Attempts at Resolving the Problem

Many researchers have considered and proposed solutions to the definitional problem. Collison and Parcel [26] concluded that KM was very difficult to define. Jennex, Smolnik and Croadsdell [2] used a consensus – building approach by surveying an Expert panel to propose a successful definition of KM. They concluded that a generally acceptable KM definition would be: *"KM success is a multidimensional concept. … KM success is measured using the dimensions of impact on business.…"* [2:183]. By defining KM in terms of its success criteria, created yet another foundation for diverse perception of KM and sustenance of the status quo.

After informally studying more than 100 definitions of KM, Mishra wrote, "*KM is a multidisciplinary field of study that covers a lot of ground*."[28:5] It is this concoction of approaches from diverse disciplines, researchers and professionals that sustains the lack of a definitional consensus to KM [27–29]. This lack of consensus testifies to the *"Three Blind and an Elephant*" ailment that the KM field is enduring and continues to endure. [4, 19, 27, 30, 31].

In a more recent study, Girard & Girard [14] formally studied and analyzed word composition of more than 100 openly accessible definitions of KM with applied orientation from 13 countries and 23 knowledge domains. This categorization according these authors was down to the idea expressed across the literature that KM is diverse and draws from many disciples. The results show that KM is consistently defined in terms of Create, Share, manage, and knowledge process, Organization and information. They observed that two definitions could be carved out of these commonalities. They include:

- "*Knowledge Management is the process of creating, sharing, using and managing the knowledge and information of an organization.*

- *Knowledge Management is the management process of creating, sharing and using organizational information and knowledge.*"[14:14]

These definitions incorporate the basic elements of a good KM definition which some authors [19, 28] have suggested to include combined capturing, storing and valuing of intellectual assets.

5. Proposition: Overcoming the Paradox

In this review, the authors found that the major lenses through which professionals and academics have viewed and understood KM throughout its history included multidisciplinary, science, processes, environment, technology, knowledge creation, value creation and retention. On the bases of the history, definitions or descriptions of KM to date, we concluded that knowledge is a multidisciplinary science [8–17] and adapts to the organizational context [7]. This seems to have been a significant piece missing from the interpretations of the earlier works of KM to date. We therefore put forth a context agnostic proposition with high organizational interoperability that sums these characteristics of KM. The proposal follows thus: *Knowledge management is a multidisciplinary science and process of organizational knowledge creation and retention that engages people, process, environment and technology to create, retain or increase value.* Figure 2 below is used to depict this definition of KM and approaches proposed by this paper.
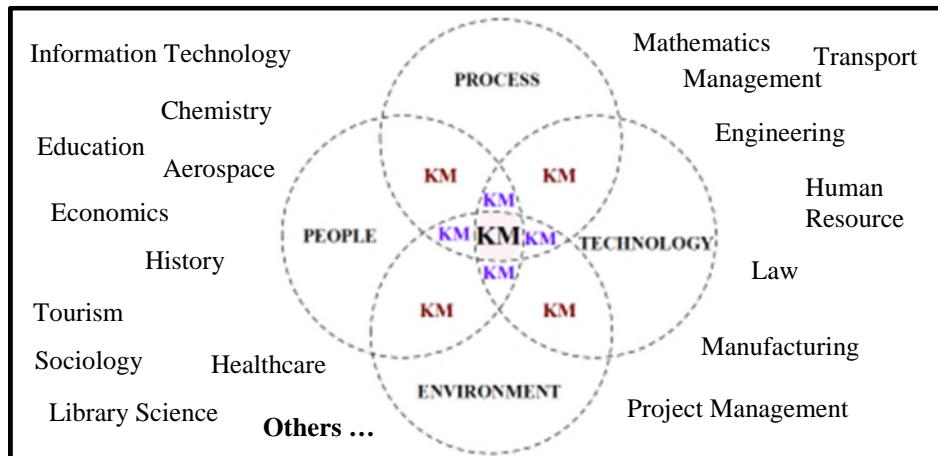

Figure2. Illustration of KM; interpreting Nonaka & Takeuchi [9]

Turning now to further evidence in the literature that supports the new definition. In the next two sections, we present the core lenses of KM perception comprising the proposed definition and how they are captured in existing works.

5.1. Knowledge Management as Multidisciplinary Science

Knowledge is a "*Universal*" and therefore constitutes a concept of general awareness and understanding [18]. By this explanation, knowledge belongs to all disciplines and therefore managing cannot be isolated from its respective diverse disciplinary affiliation

and presence, thus making KM a multidisciplinary endeavour. Nonaka and Takeuchi [9] confirmed the multi-disciplinarity of KM by highlighting the fact that "*socio-economists …[and other researchers] in the fields of industrial organization, technology management, management strategy, and organizational theory have begun to theorize about management of Knowledge" [9:viii]*. This affirmation demonstrates that these authors already construed KM as a multidisciplinary science without directly stating so.

Furthermore, KM is a concatenation of two or more disciplines and processes [8–15]. In their book, Dalkir et al. [19:21] observed that "*KM has its roots in a variety of Disciplines.*" They listed at least 12 fields that KM transcends. This multidisciplinary view is supported by other researchers who describe KM as a multifaceted, multi-sourced, ambiguous, scientific discipline with a multidisciplinary ownership, with a fragmented history and perception [11–13]. Girard and Girard [14] categorized the definitions of KM by disciplines because "*... knowledge management is a multidisciplinary field drawing from many subject areas.*" [14:2], as has been expressed in the literature.

5.2.   KM – Engaging People, Process, Technology & Environment

This sections show how KM has been perceived and portrayed in the literature as fundamentally involving people, process, technology and the environment. It sheds light in how people, process and technology influenced the philosophical distinctness of KM.

In their research, Nonaka and Takeuchi [9] presented the management of knowledge as the process of interaction between the epistemological and the ontological dimensions of knowledge. Though the environment is not captured in their design, it forms part of a key enabler of the organizational knowledge creation they referred to as– "Fluctuation and creative chaos" [9:78]. Nonaka and Takeuchi [9:78] observed that "*An environmental fluctuation often triggers a breakdown within the organization, out of which new knowledge can be create*d". Their assessment and interpretation set the foundation what would become today's definitional challenge. Their publication captured all the elements or principles of KM espoused existing KM literature to date.

They drew attention to the process of knowledge conversion that is characterized by the interaction between explicit and tacit knowledge in a spiral process. KM as a process characterized by people, technology and environment is widely supported in the literature [11–14, 16, 20].

6.   Conclusion

Altogether, the emphasis on the creation of new knowledge without including existing knowledge that is strongly considered in later approaches to knowledge management adds to the difficulty of defining knowledge management in a way that would be generally acceptable. Because existing knowledge is context or discipline specific, attempts at including this element has therefore led to extensive contextualization and proliferation of knowledge management definitions without a generally accepted one.

This paper has therefore proposed a definition that captures all the characteristics of knowledge management as expressed in various research papers and books from the 1970s to date.

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