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Tacit Knowledge Space and Organizational Efficiency[1]

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Abstract

In this paper I discuss what we mean by a "Tacit Knowledge Space" (TKS) and how it relates to organizational efficiency. The idea of tacit knowledge space is a borrowed concept from Michael Polanyi's seminal work and it derives a rich understanding of an organizational space which is occupied by knowledge dimension characterizing the implicit aspects of knowledge transfer and decodification of the tacit component of learning and skill development into its more readily applicable explicit counterpart. This TKS is a growing space in knowledge organizations and workplaces that is found to be immensely useful among the knowledge workers of today. We discuss these issue and construct a structural frame to model such a space that has organizational implications and contributes to employee efficiency in the long run.

Keywords: *Tacit dimension, tacit knowledge space, knowledge workers, organizational efficiency*

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1. Introduction

If it be considered following the findings from behavioral sciences and psychology researches that knowledge is rooted in human behavior and actions, then one may ask, wherein do our thoughts dwell? What are the roots of intentional thinking and skill development? And, how our thoughts direct us to become more productive and efficient? What skills make us more productive? This would perhaps require a recourse to Michael Polanyi's (Polanyi, 2009) writings on tacit knowing, among others. In his landmark book, "*The Tacit Dimension*", which is basically a collection of lectures and thoughts spanning over several decades of his productive career, Michael Polanyi took the opportunity to explain and understand the structure of tacit knowing. The effect had been substantial. The concept of tacit knowledge was readily acknowledged no sooner than it was absorbed into management thinking and practice, for it has now become a favorite theme among the managers and executives who believe that they have found a good ground for understanding the fundamental basis of this inexplicable concept of implicit learning, and the resulting tacit knowing. It's understanding, however, is a difficult thing, wherein the difficulty lies in its use where it is verbalized and absorbed for proper utilization (Tsoukas, 2005).

Firms are good at leveraging invisible assets, among which tacit knowledge being the one which takes a special place in management literature (Kakabadse, Kouzmin, & Kakabadse, 2001; Tsoukas, 2005). Tacit knowing has also been applied to the field and domain of organizational studies, including organizational learning (OL) and Organizational Culture (OC) respectively. This

is on account of the association of tacit knowing with cognitive and behavioral developments of learning in organizations. Organizations today are highly complex entities: they are not just workplaces, but beyond that, they constitute as the bodies of knowledge creation, productivity, and innovation. Therefore, the content produced by the processes of organizational learning, adjustments, and adaptations vary greatly, and contribute to knowledge spaces. This is what I call *tacit knowledge space*. One may, hence, quite easily trace the behavioral outcomes that reflect the patterns of developing cognitive associations in organizations (Bennett and Bennett, 2008); i.e., growth and development of skills and widespread dissemination of practical knowledge useful to organizations. But again, what is it that we mean by the term *Tacit Knowledge Space*? In this research paper, we attempt to define such a knowledge space that is the result of tacit knowing which leads to creation of a form of organizational memory and record from where users can readily access what's essential for organizational practice. We show that creation of such a dedicated space would not only increase the efficiency of organizational operations, but will also result in increased productivity of the workforce, thereby promoting employee performance and productive efficiency of a firm/organization.

a. Research Goal

Now, what do we mean by Tacit Knowledge Space (TKS)? How creation of a knowledge space—that of tacit, could help organizations perform better? In this paper, we attempt to address the specific issues that most likely determine organizational efficiency and productivity. Our research goal, in this sense, is to

examine organizational operations that constitute the basis of association of learning and tacit knowing, and their effects on the productive efficiency frontier of knowledge workers. In another sense, how workforce behaviors, actions and thoughts help determine what organizations do best to survive and sustain competitive pressures is the current theme of this research. The goal is thus allied to the productivity aspects of firms, and the factors that contribute to its increase. It also examines the exchange of and transfer of tacit knowledge into its explicit form, which has great use value for business firms that continuously strive for productivity and innovation to survive in highly competitive environments.

Learning of tacit skills, it is assumed, is achieved through observation, imitation, and practice. Adoption of effective learning strategies that contribute to the development of tacit skill is imperative to modern day organizational practice. Knowledge of such could be used to explain in more detail what's needed to increase workforce productivity—of both blue collar and knowledge workers. It must be borne in mind that knowledge workers are asset to an organization (Drucker, 1999). Our goal is to understand with more clarity and gain systematic insights into craft knowledge (practical knowledge), or tacit knowledge—to say so in another sense. The knowledge of expertise and the knowledge required to gain expertise are both invaluable to organizational existence, operation and survival. It gives certain clues to organizational innovativeness and their competitive spirits. We want to identify and examine the clues of organizational efficiency: what makes a knowledge organization more productive

and efficient than its competitors? Besides, it is imperative to understand how tacit knowing and tacit knowledge contribute to and in what way they help determine productive efficiency of an organization. Similarly, it goes too for the workers: what makes some workers more efficient and productive, and what inhibits them thereby making them less efficient but more idle.

2. Organizational Competiveness and Tacit Knowing

It needs be understood that only explicit knowledge is valuable and that's the one which can be leveraged by organizations. This theory has been forwarded and well-defended by Michael Polanyi in his book "*The Tacit Dimension*". However, there are other forms and kinds of knowledge the value of which is often unknown to others (Hayek, 1945). These are—according to Hayek, knowledge of special circumstances and events: the unorganized knowledge of the particular circumstances of time and place. Besides, there's benefit of possessing unique information unknown to others. *Skills* are special sets of "tacit" knowledge whose development and proper utilization are beneficial to society. Learning—in such respect—helps develop skills and it adds to existing knowledge which becomes asset for an organization. Organizations in due course of time and out of necessity make use of such skills and unique knowledge that we call tacit information. However, credibility of knowledge is an effective instrument of organizational transformation. Learning could help draw out the best that are to be found in employees. Hence, continuous learning is effective in developing skills that are crucial for organizational competitiveness.

Knowledge is that one amplifier which inspires learning. Organizations hence support and promote learning among the workforces to help cultivate tacit skills and to stimulate productivity and innovation. It is the experts who are in possession of special knowledge: tacit skills. But unless such tacit knowledge is converted into its explicit counterpart, organizations are not able to fully leverage it to their advantage. When converted, it becomes a powerful instrument of success. Organizations who command such special knowledge of expertise are in authority to command a competitive edge in the markets (Drucker, 1999).

Organizations by way of learning along with specific actions extend their existing knowledge bases, which they continuously update for future usage and which often comes to their aid in times of need. The changing ecology of learning in organizations points to the fact that organizations now stress more on the acquisition of tacit knowledge that often marks the difference between success and failure (Levitt and March, 1988; Fiol and Lyles, 1985). Seen other way, learning vastly contributes to organizational success (Levitt and March, 1988). But what kind of learning is more useful to organizations? What kinds of knowledge are useful to the firm? Does learning help build up organizational memory? Yes, certainly it does so. These are all necessary due to the fact that modern day organizations face difficult problems and challenges: i.e., they need to deal with different dimensions of market competition, knowledge creation, innovation drive, product development, strategic marketing issues, and other aspects that characterize successful organizational operations.

One the other hand, organizational management has become a strategic domain of study and research, and organizations today give more importance to the role of knowledge in management of organizations; e.g., *organizational operations*, *people, process*, and *practice*. Since most industrial organizations and manufacturing firms strive for creativity, knowledge creation and innovation, such processes need effective management of knowledge resources as well. In that respect, organizations make use of *explicit* or “codified knowledge” which is directly available and transmittable to them in order to leverage productivity and operations. This form of knowledge can be shared, communicated, and stored for future retrieval and usage. This process is, nevertheless, understandable. But could it be more difficult to understand that productivity is a function of say, effort plus skill? If that be such and so, then what makes somebody more productive and efficient than someone else?

Productive work creates value, and productive activities that are distinct, result from specific need, aim or imposed necessities. However, intellectual output is also a productive activity. It is the result of a combination of cognitive effort and noetic exertion. Additionally, it may involve the use of other intellectual resources. One particular example is, for example, inventions or innovations, as they both require involvement of noetic components (thought process, reasoning, and rational thinking) and utilize the sources of intellectual assets (i.e., use of references to the past works of creativity and imagination). Hence these are knowledge-intensive works better suited for knowledge workers. How could then the productivity of knowledge workers be improved? This particular

issue has been addressed with care by Peter Drucker in his paper titled, "*Knowledge-worker productivity: The biggest challenge*".[3]

3. Discussion

To understand the tacit knowledge space within which firms (organizations) operate, we may take for granted that *firms* could be analysed from both resource view point of frame, and product development frontier. However, Wernerfelt (1982) considered resources and products as two sides of a same coin. Which means that, product development (including innovation) necessitate the use of resources as inputs, and that gives a different perspective of the resources position of a firm, in terms of its strengths and weaknesses. This is pertinent with respect to continued innovation in product development that is so essential for good firms to survive and overcome stiff product market competitions. Thus, firms who bring innovation to the marketplace through product development and service delivery foster healthy competition and facilitate economic growth (Ahlstrom, 2010). In this paper, we introduce the concept and the idea of the "Theory of Productive Capital", which is closely linked to the subject of organizational learning, Organizational capital (Prescott & Visscher, 1980; Dessein & Prat, 2022), Product Market Innovation (Lyon and Ferrier, 2002), and Managerial capital (Murphy & Zabojnik, 2006). Capital—in any form, is a factor of production (Hennings, 1990), and, it could be viewed as a resource, when one considers a resource-based view of a firm. According to Martín-de-Castro et al (2006), some form of

[3] This paper appeared in the California Management Review, (1999) Winter, Vol. 1 No. 2

it which constitute as Organizational Capital is the source of competitive advantage to a firm. While considering the capital structure of a firm, if we can incorporate different forms of capital structure and types of resources being used, for example, managerial capital (Neill, Wu & Noel, 2023; Murphy & Zabojnik, 2006), or, organizational capital (Prescott & Visscher, 1980; Dessein & Prat, 2022), then why cannot one consider productivity (i.e., efficiency) as a form and structure of capital resource employed as input to production? This is the foundational basis of this research, for we consider “productivity” as well as “efficiency” as a form of strategic resource, which could be viewed as an input to production as productive capital of a firm. Productivity and efficiency contribute to firm productivity is a positive manner. But of course there are many other determinants of organizational (firm) productivity, but these aforementioned factors are no less important in determining firm-level productivity. Without productivity there’s no innovation possible.

The things and objects necessary to organizational productivity are skills, competency, knowledge, and aptitude of the workforce. Productivity is the result of effort, action and efficiency. Industrial and manufacturing firms can largely be designated as productive organizations, for they produce goods and commodities for consumption that have value and utility. Consumption is a function that utilizes economic goods to satisfy human needs and desires. It is not a new idea but an offshoot of thoughts relating Organizational Science to the Science of the Economics of Human Capital Management (Schultz, 1972). A stock of capital goods—known as capital, is required in the production of something else.

Productivity is a function as well: the rate at which something is produced per unit time. It is also a power and the capability to produce something like goods, commodities, or to create, render and offer some services. Today, the concept of productivity is wide-ranging, and it includes the production of services as well. Something must go into the production of something else; the "input—output" mechanism. Effort must go in to offer some services. Therefore, services is also a sort of product as well. The division of labour, in Marxian sense, however, has become more complex with employees today depending on knowledge and development of high technological skills that use advanced technologies, including the (artificial intelligence) AI. More complexities in skill development and their firm-level utilization is creating independent knowledge spaces across the organizations and also in the virtual world of informatics and the web.

In the industrial sectors, it underpins the principles leveraging knowledge, human potential, and human capital to promote creativity and stimulate innovation in all kinds of organizations, e.g., governmental, industrial, manufacturing, and services types. The concept is modelled on the backdrop of "innovation" that drives today's organizations towards success. Indeed, one of the key factors that drives organizational success is innovation. But innovation itself is driven by many other factors, the chief among them being: (i) the creative capacity of individuals, (ii) new knowledge creation capabilities, (iii) new product development, (iv) power of imagination, (v) individual performance, (vi) improvements and advancements in technologies, (vii) acquired experiences, and (viii) tacit skills of the individual. This last factor—

the “tacit skill”—is a crucial determinant, insofar as it concerns with organizations capable of bringing innovations in their production, operations, and service delivery frontiers. Organizations driven by innovation become more successful and remain viable. They build up a space—so called a knowledge space—that they leverage for their operations. This space is what I call the Tacit Knowledge Space which is the key to sustainable existence of a firm. The role of tacit knowledge in organizations (Baumard, 1999) could best be understood today in their direct application to solving complex problems and creating solutions to emerging problems. Within this space, firms can operate seamlessly and innovate, and bring efficiency in their production process and service delivery. Innovation requires the application of tacit knowledge. Therefore, innovation is a “key” sustainable strategic tool for organizational success. To sustain organizational success, firms create such a space for innovation where knowledge engineering and reengineering takes the upper hand. The resultant effect becomes a capital resource for the firm. Firms utilize such knowledge capital as strategic resources, as they leverage its powers to maintain strategic and competitive advantages in the markets. This, we believe, is the fundamental basis of capital utilization. The role played by a knowledge space—tacit knowledge space therefore, is of supreme importance in creation of, and utilization of capital resources that are employed for organizational activities, including innovation, technological breakthrough research, and other R&D activities. It must be understood that this space defined as TKS is not synonymous with the R&D, for research and development is a workspace for the employees, whereas the Tacit Knowledge

Space (TKS) is an intellectual space within which ideas and knowledge are transcribed into applied, real-world situations. It is space that firms create to gather and curate work experiences which also becomes a part of the organizational memory.

4. Conclusion

In this paper, we have discussed the novel aspect of Tacit Knowledge Space, a hypothetical space that exists within organizations which is used by the employees for their firm related activities. Such activities that involve the application of skills and special competencies create a space for the working teams within which they share, create, ideate, and curate tacit knowledge related understanding that are so essential for organizational functioning. Any modern day organization's productive efficiency is linked to leveraging of intellectual asset and knowledge resources, of which tacit knowledge constitutes as an invisible asset. Therefore, firms should give and create more space for cultivation and transcription of tacit knowledge into its explicit component, for which a space similar to TKS is highly desirable.

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