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The Role of Tacit Knowledge in Innovation of Public Management

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Abstract. This paper study about role of tacit knowledge in innovation of public management. Innovation management includes the management of processes to strive for novel assignments through the combination and integration of different knowledge components. Besides, next to explicit knowledge, tacit knowledge has a crucial influence on the success of innovation processes in companies. Tacit knowledge is an important driver in the innovation process and its application has significant impact on the innovation process and, therefore, plays a prominent role as a public management and success factor. Compared to the work on explicit knowledge, the management of tacit knowledge is relatively unexplored. The authors of this paper want to assess the significance and implications of tacit knowledge in the innovation process. Therefore, it is essential to understand the different approaches of tacit knowledge in knowledge management and innovation management literature, and its assigned characteristics. The role of tacit knowledge in innovation public management is explored; creation, availability and transfer of tacit knowledge within the organization are discussed. Based on this literature review the described the impact of tacit knowledge on successful innovation public management. Key levers for tacit knowledge management have been identified and the positive impact of tacit knowledge on innovation success is analyzed. Finally, suggestions for tacit knowledge that lead to innovation of public management.

Keywords: Tacit Knowledge, Innovation, Public Management, Knowledge Management

1. Introduction

Nowadays innovation success is becoming even more important. After months and years of restructuring and cost cutting to regain profitability, many firms are forced to renew their product portfolio. Only with new products can they sustain their competitive position by increasing revenues and profit, leading to an improved company value. But do the firms have the right conditions and environment to lead them to maximum innovation success? Do they understand the appropriate triggers and levers for optimizing their innovation success?

In the day-to-day world of public management there always has been and there remains a contest over the types of knowledge that are relevant to decision making. For example the NPM (New Public Management) focus of the past 20 years essentially privileged expertise from market sources as the dominant knowledge source. This was reflected in almost all aspects of the public sector from recruitment focus (towards managers and accountants and economists), through the types of strategies deemed relevant to address problems (user choice/user pays), to the instruments of implementation and service delivery (contracts and competitive tendering). New forms of disadvantage arose, however, and many discourses were excluded from the policy and management arena. This knowledge is re-emerging not just in the public administration literature but also in economics' 'cluster theory' [1] and in geography's new regionalism. Essentially these theories all have a focus on the significance of local area networks and their dynamic contribution to innovation, wellbeing and prosperity. The key factors at play include local leadership; institutional capacity; trust relations; the significance of history and narratives; local area data; network

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relations and recognition of interdependence between the worlds of social, economic, natural and human capital.

While these ideas and practices now entering public management lack the unity of previous waves of reform and do not, for instance, have a single catchy title to reflect a coherent dogma, they are having a profound impact on the practice of government. Our argument for regarding this, tentatively at least, as a fundamental change is twofold.

First the underpinning concepts, which are legitimizing the changes, are so different from those they are superseding. The implication of this is that the current changes go beyond incremental reform. They involve the establishment of a new set of meanings in public sector activity and the way in which it fits into society. This ontological change is underpinned by a series of epistemological changes.

The second element indicative of a fundamental shift in contemporary public administration has a more familiar quality. It is that the new concepts are proving powerful in illuminating intractable issues of public policy and management which have proven impervious to orthodox understandings and instruments. This is a more familiar type of change because it is a response to problems arising in the implementation of policy. Just as NPM was a response to perceptions of the increasing inefficiency of traditional bureaucracy so the contemporary efforts to (re-) include social factors may be seen as a response to deficits in NPM outcomes. Where the contemporary developments go beyond such reactive dynamics is in the way they reflect the increasing complexity of modernity such as footloose capital creating uncertainty for many communities and indeed nation states.

2. The Importance of Knowledge Management

Knowledge has proven to be the most important factor in economic life and therefore should be managed properly and effectively [2]. Knowledge is the chief ingredient of what we buy and sell, and the raw material with which we work. Intellectual capital – not natural resources, machinery, or even financial capital – has become the one indispensable asset of corporations. This is supported by Nonaka (1994), who suggested that knowledge was the single most important production factor in terms of the capacity of an organization to survive and, subsequently, the means of gaining and sustaining competitive advantage. Scholars are normally categorizing ‘knowledge’ into two - tacit and explicit knowledge [3]. Tacit knowledge, also known as embedded and sticky knowledge, is a cumulative store of experiences, mental maps, insights, expertise and others. On the other hand, explicit knowledge or sometimes called leaky knowledge, is the knowledge that has been documented and can be distributed to others which includes guidelines, procedures, white papers, reports, strategies and others. Tacit knowledge is deeply rooted in an individual's actions and experience as well as in the ideals, values, or emotions he or she embraces [4]. Although both of the knowledge bear distinguished differences between each other, they are actually complementary of each other. Explicit knowledge without the tacit insight quickly loses its meaning [5]. However, according to Nahapiet and Goshal (1998), “tacitness may be considered as a variable, with a degree of tacitness being a function of extent to which the knowledge is or can be codified or abstracted". Knowledge may dynamically shift between tacit and explicit over time (Nonaka, 1995), although some knowledge always will remain tacit [6]. Analysis of these definitions and many others reveals that knowledge management relates to three main aspects – identifying, gathering, converting, storing, and sharing of knowledge.

3. Tacit knowledge management

Many definitions of tacit knowledge exist but Polanyi (1969) is widely accepted as the founding father that identified the significance of the concept of tacit knowledge. Polanyi encapsulates the essence of tacit knowledge in the phrase ‘we know more than we can tell’, and provides further clarification in such commonplace examples as the ability to recognize faces, ride a bicycle or swim, without the slightest idea to explain how these things are done [7].

Grant (1997) explores the term relating to its applicability: “tacit knowledge which is manifest only in its application and is not amenable to transfer”. Rüdiger and Vanini (1998) say that tacit knowledge is represented through non articulated knowledge [8]. The different attributes focus on particular parts of tacit

knowledge management and, therefore, highlight somewhat different aspects of tacit knowledge. The authors of this paper want to concentrate on the role and impact of tacit knowledge in the innovation process, and the tied-in achievement of innovation success in organizations.

4. Knowledge Creation and Conversation

Basic conditions should exist for the Evolution of tacit knowledge and tacit knowledge creation. Nonaka et al. (2000) come up with the spiral model of knowledge: new knowledge always begins with the individual, e.g. a brilliant researcher has an insight that leads to a new patent or a shop-floor worker draws on years of experience to come up with a new process innovation. Making personal knowledge available to others should be the central activity of the knowledge and innovation creating company. It takes place continuously and at all levels of the organization. The interactions between tacit and explicit knowledge are called knowledge conversion. Through the conversion process, tacit and explicit knowledge expands in both quality and quantity (Nonaka, 1991). There are four odes of knowledge conversion - socialization, externalization, internalization, and combination [5]. The knowledge creation and conversion processes are modeled below in the figure 1.

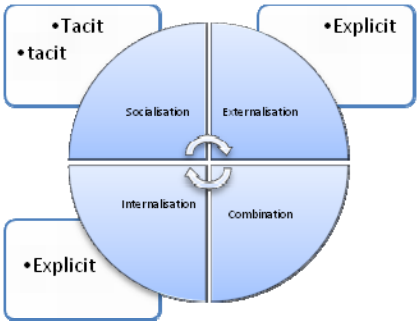

Fig. 1: The Knowledge Creation Spiral of Nonaka

• ***Tacit to tacit*** – happens when two or more human beings interact, and tacit knowledge is expressed in a social way and passed from human to human which is called socialization.

• ***Tacit to explicit*** – happens when human captures tacit knowledge by writing it down or capturing it on computer (digitizing/codification) and is called externalization.

• ***Explicit to explicit*** – this happens when multiple sources of external knowledge are brought together within a new context, like researching multiple sources, or when computers reference different data sources and is called combination.

• ***Explicit to tacit*** – happens when a human consumes explicit knowledge by reading/ viewing/hearing from the media it was externalized, and this process is called internalization. Since Nonaka's SECI Model caters for other explicit and tacit knowledge and it has been widely used in Knowledge Management literature, it was adapted for the purpose of this study [9].

Baumard found common characteristics among successful tacit knowledge conversion companies: "resolution of ambiguity through communities of practice; tacit complicity among employees; informal matrices of relationships among employees and reliance on collective knowledge" [10]. We follow these arguments and conclude that, the basic conditions for tacit knowledge to be created and shared and used for in the innovation process, are trust amongst organization members. Sharing tacit knowledge will be more successful in informal settings than in formal ones. Therefore, it is important for the management of organizations to cultivate commitment to motivate the creation of tacit knowledge, and to create an atmosphere in which organization members in an organization feel safe sharing their knowledge.

5. Innovation management

To be able to analyze the impact of tacit knowledge on innovation we need a uniform understanding about the definition of innovation. The growing interest in innovation and its relationship to economic growth has resulted in a body of specialized literature on various facets of the process of innovation starting

with simple linear "technology push" [11], and "need pull" models in the 1960s and 1970s [12], through the "coupling model" of the late 1970s [13] to early 1980s to the integrated model of Rothwell (1992). The complex nature of the innovation process has been analyzed by several authors. Tornatsky et al. (1983) described the process of innovation as a "process of many discrete decisions and behaviors that unfold slowly over time". Forrest (1991) reviews and structures a number of models of the innovation process and identifies the important elements involved. For the authors three dimensions are especially of major importance, and they will be discussed in the following chapters: types of innovation, type of industry and organizational structure of an innovative firm.

6. The role of tacit knowledge in innovation management

The authors see the need to combine all different dimensions discussed above within one classification model. This model enables companies to adapt tacit knowledge management to their specific innovation process by optimizing their innovation success. Such an approach offers a meaningful tool for both academics and practitioners. We have to stress that due to the specific situational circumstances a contingency approach is recommended to be able to adapt the importance and weight of the various factors.

It is made clear that innovation management corresponding to its type of industry, type of innovation, and its organizational structure, has to employ different mechanisms and structures to be able to utilize the existing tacit knowledge assets for each company's innovation success. Problems which occur within the scope of the innovation process are often too complex to be solved only on an analytical basis. Making decisions within an innovation process rely heavily on tacit knowledge 'know-how'. Consequently tacit knowledge plays an important role in all stages of the innovation process. It is obvious that in the early phases of the innovation process, (idea discovery and generation), the degree of intangibility is high, so the assumption is close that the significance of tacit knowledge in the early phases of the innovation process plays a more important role. Blümm (2002), however, has disclosed in his case studies that also in later phases of the innovation process tacit knowledge tremendously contributes to speeding-up of the innovation process and thus results in innovation success. As regards to innovation success, the authors refer to Ritter (1998), who has defined innovation success by two components: product innovation success and process innovation success. These two dimensions reflect the market recognition compared to the competitive environment. Along with König et al [14] successful innovations lead to increased revenues and profits.

7. Conclusion

For the authors it can be derived that tacit knowledge is an important driver in the innovation process, and its application has significant impact on innovation success of public management, and therefore, plays a prominent role as company resource and success factor. It displays in detail, the most significant tacit knowledge levels for the management of tacit knowledge and the corresponding underlying dimensions for innovation management. The role of tacit knowledge in innovation public management is explored by generating a model which enables governments and companies to adapt tacit knowledge management to their specific type of innovation, type of industry and specific organizational structure, within their innovation process and, therefore, to enhance the possibility to optimize their innovation success. The model reflected is somewhat idealized, as generally in the innovation process tacit and explicit knowledge components merge into each other and are quite difficult to separate from each other. On the other hand this one-sided emphasis serves to underline the need for straight analysis, to gain the right consequences for tacit knowledge management in the innovation process. Researchers and managers in the field of interaction and networks should show high interest in this subject as tacit knowledge seems to be an outflow of personal interaction processes.

Overall, our findings regarding the impact of tacit knowledge on successful innovation of public management and the development of an integrated model, provides us with a solid starting point for further analysis on tacit knowledge in innovation of public management. This starting point character comes on top of the fact that it can be used as a tool for managerial decision making.

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