

Knowledge Sharing and Building in Succession of a Firm

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Abstract – Successful knowledge-based organizations have been portrayed as balancing on the edge of time: they are able to connect experience and lessons learned in the past with current activities and with a view to the future. Succession presents many challenges to this continuity of organizational knowledge. Traditionally, succession has been associated with transferring the existing knowledge from senior workers to newcomers. The paper examines succession as a knowledge-based process consisting both of transferring seniors' expertise to juniors, as well as using juniors' competencies for building knowledge that is new for a firm, i.e. succession is seen as a context where both continuity and renewal are produced. To examine succession from a knowledge-based view, we have implemented an empirical study on succession of a Finnish expert company. The objective of the research is to describe and understand how knowledge is used and modified in the context of succession. The theoretical and methodological basis of the study lies on sense-making. The preliminary results prove that in the studied firm, social interaction related with the succession leads not only to transferring the existing knowledge of the senior workers to the newcomers. In addition, new knowledge can be applied and created in the context of master-novice interaction. The newcomers bring in new ideas, standpoints and knowledge that are valuable to the firm, as well as apply and change the existing organizational knowledge. Thereby succession is not only a process of producing continuity of organizational knowledge, but also of renewing it.

Keywords – knowledge, organizational renewal, sense-making, succession

I. INTRODUCTION

As knowledge has become the major driving force of economic growth and corporate success, organizations need to direct increasing attention to managing knowledge and leveraging intellectual capital. In order to create sustainable competitive advantage, firms must be able to identify and leverage their current knowledge and capabilities, as well as to renew what the organization knows and to build new capabilities for the future [1]–[5]. Successful knowledge-based organizations have been portrayed as balancing on the edge of time: they are able to connect experience and lessons learned in the past with current activities and with a view to the future [6]. These firms create continuity,

while at the same time allowing for flexibility and emergence of new developments.

Succession presents many challenges to the continuity of organizational knowledge. For example, how can new employees learn to understand and adopt the firm-specific ways of working and doing business? How can senior employees' knowledge be passed on to newcomers? Is there a way to embed at least some of their skills and knowledge in an organization to remain after they have exited? As a consequence of the coming retirement of World War II baby boomers, succession will be accomplished in many companies around the world in the near future. Knowledge and advice for a successful completion of succession would help firms to maintain – or even to improve – their competitiveness during, and especially after, a succession process.

Traditionally, succession of a firm has been associated with transferring the existing knowledge from senior workers to newcomers [7]. “To transfer” implies that during the succession process, knowledge should be changed as little as possible. However, this paper argues that succession can also be seen as a context where new knowledge is created and thereby an opportunity for organizational renewal. It is not only seniors who have knowledge to be shared; newcomers are likely to have new knowledge, ideas or standpoints that can be valuable to an organization. We suggest that new knowledge brought in by newcomers is an important asset that can fuel organizational renewal through opening possibilities for creation of new organizationally valuable knowledge. Therefore, succession as a knowledge-based process consists both of transferring seniors' expertise to juniors, as well as using juniors' competencies for building knowledge that is new for a firm. Succession is a context where both continuity and renewal are produced.

In this paper, we use sense-making [8]–[10] as a theoretical lens and a methodological approach for examining organizational renewal in the context of succession. In the sense-making approach, an organization is understood as an inherently dynamic and renewing entity where communication and interaction are the focal elements. The sense-making approach studies how people survive in changing situations by focusing on the micro-

level social processes where knowledge is used and developed in every day interaction. Knowledge of an organization is renewed as people take care of their jobs and seek, use, apply and change knowledge in social interaction.

From the sense-making perspective, succession is interaction in which knowledge is used and constructed by junior and senior employees. The objective of this paper is to describe how knowledge is used and modified in this interaction. We specifically focus on what kind of knowledge is transferred or shared in succession process, and how or in what kind of interaction this takes place. The paper begins by delineating what types of knowledge are involved in succession processes. Then we focus on seniors and juniors as agents of renewal and how knowledge is modified in their interactions. This paper contributes to the literature on organizational renewal by demonstrating how succession processes influence continuity and flexibility of organizational knowledge.

II. KNOWLEDGE AND SUCCESSION

On a micro-level of an organization, succession can be understood as an activity happening in social interaction between two individuals within a firm. During this interaction knowledge is used: information, skills, experiences etc. are sought, transferred and shared in order to find mutual understanding, to get work done and to keep a firm productive and profitable. On an organizational level, the basic goal of succession is often seen to be the transfer of valuable organizational knowledge from senior workers to newcomers, and thereby assuring continuity of organizational knowledge and knowing.

To examine succession from a knowledge-based view, we studied a Finnish middle-size expert company which produces electrical devices and systems global markets. The company pairs new employees with senior experts to ensure that juniors learn from the seniors and are smoothly socialized into productive members of the organization. To understand how knowledge is transferred and created in the context of succession, we interviewed six pairs consisting of a “master” or a senior worker, and a “novice” or a junior worker. All interviewees were male white collar workers, working in product or production development, as work leaders or as sales managers. Five of the juniors were engineers with a university degree while the seniors’ education varied. The case we studied is unique because, first of all, the interviewees going through the succession work as experts – though their work may include managing as well – while the previous research on succession has very strongly concentrated on managerial level succession [7]. Secondly, there are six pairs of seniors and juniors involved in the succession in the same firm and at the same time. This made it possible for us to gather an abundant and versatile data which spans many levels of analysis: individual, social and organizational.

In the interviews, it became evident that junior employees cannot learn the needed knowledge or their jobs simply by reading documents or instructions. “It is not possible to

exhaustively describe the inner life of devices on written papers or in computer files”, as one of the juniors explained. Another told that to be able to understand “the soul” of devices you need to “experience the synergism of different laws of physics in different environments”.

The juniors’ interviews demonstrate that learning can not proceed only through codified knowledge, but needs to be connected with personal and practical experience. The problems that the juniors encountered with learning by reading and by experiencing are linked with explicit and tacit knowledge [11]. Explicit knowledge stands for that part of knowledge which can be expressed and codified relatively unproblematically, for example, in the form of verbal accounts, numbers, formulas, and theoretical models. However, most of human knowledge is in tacit form; we know more than we possibly can ever articulate. Tacit knowledge stands for that part of knowledge that is personal, context-dependent and based on practice and experience. Tacit knowledge is demonstrated in skilled action and unconscious judgments, and it is very hard to separate it from the activity in which it is demonstrated. Furthermore, most of tacit knowledge remains subconscious even for the individuals themselves: it is impossible to explain fully what one knows, and even more impossible to articulate how the act of knowing happens. Tacit knowledge is difficult to share and transfer. It is embedded in particular practices and experiences, and it is hard to understand and transmit outside the local context.

In their highly influential book, Nonaka and Takeuchi [3] claim that tacit knowledge can be converted to explicit and vice versa, and this process lies at the center of organizational knowledge creation. Later, a number of researchers have questioned the assumption that tacit knowledge can be converted into purely explicit knowledge. For example, Wilson [12] sees tacit knowledge as an inexpressible process that can be demonstrated only through our expressible knowledge and through acts. If a person can express the knowledge, it means the knowledge is implicit, not tacit. The fact he has not expressed the knowledge before does not make it tacit. Tsoukas [13] finds Nonaka’s and Takeuchi’s interpretation of tacit knowledge as knowledge-not-yet-articulated erroneous because it ignores the ineffability of tacit knowledge and reduces it to what can be articulated. According to him, tacit and explicit knowledge are not two ends of the continuum but two sides of the same coin: even the most explicit kind of knowledge is underlain by tacit knowledge. Pöyhönen defines knowledge as “something that is constituted in the social practices of actors embedded in a particular social context” [5]. To her, the most fruitful approach to knowledge is inter-subjectivity: knowledge exists between, not within individuals. This approach makes sense because it “includes” tacit knowledge to inter-subjectivity or social context – it is there, though we cannot express it or detach it from its context.

According to Spender [14], organizational knowledge is either explicit or implicit and individual or social. Explicit individual knowledge makes conscious knowledge while

implicit individual knowledge makes automatic knowledge. Explicit social knowledge makes objectified knowledge while implicit social knowledge makes collective knowledge. In his matrix, Spender does not mention tacit knowledge at all – presumably it is included in automatic and collective knowledge. To Spender, knowledge is dynamic which means that different kind of knowledge interact with each other in social relations within an organization. In these processes, collective knowledge helps the members to develop routines and learn.

Choo [10] sees tacit knowledge as individual knowledge which is derived from practice and experience and cannot be reduced to rules or recipes. Tacit knowledge cannot be articulated but it is needed when assimilating and applying new explicit knowledge. On organizational level, Choo calls tacit knowledge cultural knowledge which roots are in the tacit knowledge of the members. According to him, there are three kinds of knowledge within an organization: individual tacit knowledge, organizational explicit knowledge and organizational cultural knowledge. Choo's cultural knowledge comes close to Spender's collective knowledge.

On the basis of our observations, we identified four kinds of knowledge within the firm. In reality the four kinds of knowledge are intertwined and overlapping, but they are separated here for the sake of grounding the forthcoming analysis of knowledge use and creation in succession:

Tacit individual knowledge – cannot be expressed

“The knowledge is part of myself, I am not able to analyze it”, one of the seniors said.

Implicit individual knowledge – can be expressed

In the past, the seniors implemented many technical tests, planning projects etc. which were not documented in any way though the seniors would have been able to do that. Some of them are documenting the knowledge related to these events now, as are some of the juniors.

Explicit knowledge – individual and organizational

This includes reports, documents etc. in paper files or in intranet. Some of these are individual, i.e. “hidden in seniors' personal maps”, some are organizational, i.e. available to all who want to use them.

Cultural or collective knowledge – implicit and tacit

The interviewees seem to have common understanding of appropriate ways to act and work, of how and why the firm succeeds, of the firm's goals etc. Some of these understandings the interviewees were able to express very easily, some of them had to be “read between the lines”. So, it seems that part of the cultural knowledge in the firm is implicit and part of it might be tacit.

To conclude, our results support the idea that tacit knowledge is hidden and cannot be expressed [5], [10]–[12] while implicit knowledge is something a person knows he knows and he is able to express [10], [12]. A part of explicit knowledge is individual and a part of it is organizational

[10], [14]. Cultural or collective knowledge is shared with the members of an organization, it is partly implicit and partly tacit [10], [14].

III. SENSE-MAKING AND SUCCESSION

The theoretical basis of this study on succession of a firm lies on sense-making [9]. In the sense-making approach, organization is understood as an inherently dynamic and renewing entity where communication and interaction are the focal elements. People construct the world through sense-making, and sense-making is involved in all social interaction. Knowledge is both used and changed in sense-making processes.

We use sense-making as a theoretical lens for studying how succession process can function as a source of organizational renewal. According to the sense-making approach, renewal of knowledge in an organization happens in interaction when people take care of their jobs and seek, use, apply and change knowledge. Sense-making approach studies those interaction processes and how people through them survive in changing situations. In order to understand and develop organizational renewal, we have to understand these grass-root level social processes through which knowledge is used and developed. The idea of sense-making has been applied to individuals and their behavior [8], to interaction in groups [15] and to organizational actions [9], [10], [16], [17]. The question of how knowledge is sought, used and modified in succession can be examined on each of the three levels of analysis:

Individual view to sense-making: needs of a junior and a senior

In an individual approach to sense-making, information is seen from a user's point of view: sense-making is communication in which an individual seeks and uses information. Individuals need information to be able to survive in constantly changing situations, i.e. to solve problems and create meanings in order to understand the environment, its events and other people [8].

According to sense-making, information needs and use vary from one individual to another because previous knowledge, skills and experiences influence an individual's current behavior and understanding of things [8], [16].

In succession of a firm a newcomer or a junior needs and seeks information to learn his job, to get to know people, to know how to act at work etc. A senior needs and seeks information when he tries to figure out what he should teach to a junior and how he should do it.

Social view to sense-making: interaction between a junior and a senior

A social approach to sense-making defines it as social interaction in which people maintain and create common meanings and understanding [15]. When exploring knowledge, the social view to sense-making is not so interested in what we know. The main interests are in how we know and how we learn what we know, i.e. in inter-

subjectivity of knowledge.

In succession of a firm a senior and a junior construct mutual understanding of what knowledge – and why, how, when – needs to be shared, i.e. they create common meanings in sense-making. During their interaction a junior also learns about a senior's tacit knowledge and about a firm's cultural knowledge. It can be presumed that a senior learns something from a junior as well.

Organizational view to sense-making: a context for knowledge creation

Sense-making, as defined by Dervin [8] and Weick [15], provides the context where organizational knowledge is used and created, i.e. sense-making builds the frame of reference for knowledge creation. In sense-making, the tacit knowledge of individuals, the cultural knowledge of an organization and the explicit knowledge within an organization are combined. In this context, new knowledge can be created. However, this knowledge creation process does not work until it gets new knowledge outside of an organization – as “raw material” [10].

In interaction related to succession of a firm, a senior's tacit knowledge is connected to or combined with a firm's explicit and cultural knowledge as well as with knowledge coming outside of a firm with a junior. This means that, following Choo's idea of organizational knowledge creation, we can assume that it is possible to create new knowledge – and through that support organizational renewal – in succession of a firm, instead of just transferring the existing knowledge.

In an ideal situation, all the three levels of sense-making in an organization work and both individuals and an organization “win”: (1) individuals find easily the information they need, (2) interaction and cooperation get on smoothly and help people to get their work done, (3) an organization produces new knowledge according to its goals and needs.

IV. SENSE-MAKING AND KNOWLEDGE CREATION IN SUCCESSION

In succession of a firm, the sense-making process starts when a newcomer, i.e. a junior, needs and seeks information in order to learn and understand his new job and the firm new for him. He asks advice from someone who has worked longer in the firm, i.e. from a senior. This leads to interaction during which a junior and a senior transfer and share knowledge and create common meanings and understanding. As a result a junior gets the information he needed (or he does not, which means that he has to ask other people, look outside of a firm etc.). What does he do with this new information? He can start to use it as such, or he can change it first to make it fit better for himself or for his job and then start to use it. In both cases he can tell other members of a firm about the knowledge he has learned, modified or created – or he can choose not to tell about it.

On the basis of the preliminary results of the presented research, it seems that six different situations may occur during knowledge sharing in the succession of the firm. In

each situation, knowledge is used differently:

No knowledge is shared between the senior and the junior

The junior gets the knowledge he needs from someone else(s) in the firm, not from his mentor. (Example from the firm: the junior and the senior have very few contacts with each other and the junior uses other sources of information.)

No new knowledge is created

After knowledge has been shared between the senior and the junior, the junior starts to use it. (Example: the junior uses old routines in implementing offers to customers though he realizes that the routines are inefficient and knows how to make them better.)

No new knowledge is created, existing knowledge is told to others

After knowledge has been shared, the junior starts to use it and tells about it to the other members of the firm – of course, some of them may already know the knowledge. (Example 1: writing instructions for the planning team to help product planning, example 2: modernization of the production method.)

New knowledge is created but not told to others

After knowledge has been shared, the junior modifies or changes it – by himself or with the senior or with other people inside or outside of the firm – and then starts to use it. (Example: application of a simulation program for own use only.)

New knowledge is created and told to others

After the knowledge has been shared, the junior modifies or changes it – by himself or with the senior or with other people inside or outside of the firm – and then starts to use it. In one way or another, he tells about the new knowledge to the other members of the firm. (Example: building of a simulation program which helps system planning and dealing it out to everybody who might need it.)

New knowledge is brought to the firm by the junior

The junior has valuable “ready-to-use” new knowledge when he arrives to the firm, but the senior does not want to use the knowledge.

(Example: modernization of the working methods. Eventually, this knowledge will be used since the junior tells the knowledge to the other members of the firm and they want to take it to use.)

It is, however, rather vague to talk about “new knowledge”, since the line between applied knowledge and new, created knowledge can be very blurred. Whether knowledge within the firm was applied or created, it is obvious that in the succession of the studied firm knowledge was changed in the ways that benefit the firm.

Leonard-Barton's [2] concept “expert intuition” describes well the tacit knowledge the seniors in the firm have. Expert intuition is based on accumulated knowledge and

experience that results in capacity to recognize and retrieve patterns from memory. This intuition is built upon the individual's immersion in a rich pool of personal knowledge about customers, technologies, markets, standards etc. Besides this tacit knowledge, which the seniors cannot express, they have implicit knowledge which seems to be easy to share with others.

In the studied firm, the knowledge applied or created by the juniors seems to be involved with the product planning for customers or with the modernization of the existing production methods, not with the development of products or production. The main reason for this is that the juniors do not have the know-how needed for development projects. Even the application or creation of the knowledge which helps product planning or current production happens in interaction between the seniors and the juniors, since the juniors do not know the products, the production processes or the customers' needs well enough. On the other hand, the juniors have high level and up-to-date know-how in technology which enables them to build simulation programs for system planning etc. It is obvious, though, that some of the seniors refuse these renewals, whether related to their own work or to production.

Within the firm, implicit knowledge is probably the most shared type of knowledge between the seniors and the juniors: it is the knowledge not written down on papers or in computer files but at the same time it is something so obvious or clear that the juniors find it is easy to make questions about it. And the seniors are happy to answer because during these discussions based on asking-and-answering they know that the juniors are learning something: "How can I know what he does not know if he does not ask me?", was a common comment from the seniors in the interviews.

According to Choo [10], an organization can create new knowledge only if it gets new incoming knowledge outside of an organization. However, Choo does not mention new employees as possible "new knowledge couriers" but suggests that new knowledge would be gathered from customers, subcontractors, experts etc. On the basis of the preliminary results of this study it seems that in the succession in the firm, new employees can be potential "couriers" of new incoming knowledge and potential "triggers" of organizational renewal – if they are treated as such and if their ideas are heard.

The term absorptive capacity [18], [19] refers to an organization's ability to evaluate and use knowledge coming outside of an organization. In absorptive capacity, the diversity of knowledge within an organization is essential, because it increases the probability of relating new incoming knowledge to what is already known. The preliminary results of this study prove that in the succession, new employees can bring, besides new knowledge, new standpoints and ideas to the firm – an intelligible result in this case where the age difference between the seniors and the juniors is, at most, 40 years.

All the interviewees explained how the most rewarding teaching and learning situations are "naturally" appearing

problem situations (problems in production devices, faults in products, customer reclamations etc.). In these situations they are pulled away from their safe and familiar every-day life. No one knows the right answer and in order to find it all possible knowledge and viewpoints are needed, everybody's input is valuable. The juniors spoke about these situations with deep enthusiasm: how great it is to see things happening in practice, how illuminating it is to understand reason-effect-relationships through experience. Also the seniors found these situations fruitful for learning since in them they can be sure that the juniors are learning. How can they be so sure? Because it is in this kind of situations they themselves did learn their work: "The only way to learn this job is by doing it.", "Back then we did not know what we were doing or what would happen, we just did – and learned".

V. CONCLUSION

The paper discussed organizational succession process from a knowledge-based view. Succession was approached as a context where senior and junior employees make sense of new situations and construct and modify knowledge. The purpose was to find out how and in what kind of interaction knowledge is used and changed in the succession of the expert company. We found that social interaction related with the succession leads not only to transferring the existing knowledge of the senior workers to the newcomers. In addition, new knowledge can be applied and created in the context of master-novice interaction. The preliminary results of our study prove that in the studied firm, the newcomers bring in new ideas, standpoints and knowledge that are valuable to the firm, as well as apply and change the existing organizational knowledge. Thereby succession is not only a process of producing continuity of organizational knowledge, but also of renewing it.

In order to make succession a part of organizational renewal process, firms – and especially managers – should understand succession as a two-way process of active knowledge co-construction instead of a one-way process of information transmission. Newcomers are willing, maybe even eager, to put their knowledge to the use of their firm if they are given an opportunity to do so. On the other hand, senior workers could be more motivated and less resistant of change if they knew that their current positions will not be threatened because of renewals. In this way, an organization could benefit both from transferring the existing valuable knowledge, as well as creating new useful knowledge.

The sense-making approach provides both a theoretical framework and a methodological tool that can deepen and enlarge our understanding of organizational knowledge. Sense-making focuses on real-life working processes where individuals seek and use knowledge. It can therefore open new paths for understanding the continuously renewing organizations.

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