# ENABLING INNOVATIONS IN A COMMERCIAL VIRTUAL ORGANIZATION

Work-in-progress paper

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## Abstract

Innovations help position a company in an uncontested market space. According to the open innovation's principles, innovations are not only gained through the research and development activities of a company. An employee's innovative behavior is supported by knowledge diffusion mechanisms and also by leadership practices. This single case study aimed at finding those management practices that enhance knowledge diffusion and, thus, innovativeness in a geographically distributed organization having several virtual teams. This single case study proposed that an IT system with related global processes together with knowledge diffusion opportunities and relevant leadership practices increased employees' innovative behavior in a virtual team. The case company, **Nokia Siemens Networks**, produces telecommunication related services, software and equipments. The case company was formed in a merge of two separate companies, which even increased research and development challenges. The innovativeness in a networked organization has not gained much space in the research community.

# INTRODUCTION

Innovations, new ideas and creativeness can assist a commercial organization to position itself into an uncontested market space (Kim and Mauborgne, 2005 and Lewitt, 1960). In an uncontested market space the organization can have enhanced opportunities for the growth. This statement is supported by several scholars who report that innovative behavior of employees helps attain the success of any organization (Unsworth and Parker, 2003; Smith, 2002). In order to realize a continuous flow of innovations, employees need to be both willing and able to innovate (Jong and Hartog, 2007). One cannot expect existing leadership models that are developed to predict performance in routine settings to entirely be applicable to the leadership of innovative individuals (Mumford and Licuanan, 2004)

Knowledge diffusion has been regarded as one of the key enablers for new innovations (Jong and Hartog, 2007, Leenders et al., 2003). Internationalization of the markets, and, thus, the requirements for the specific market skills set a demanding frame for any commercial organization to be fulfilled. Consequently the need for virtualized teams has increased (Leenders et al., 2003; Ford and Thomas, 1995). The key challenge confronting a virtualized organization is augmented problems in knowledge diffusion because of the lack of proximity of the team members. The geographical and cultural gaps plus the lack of comfortable communication methods in a virtualized team seem to be obstacles in inventing new innovations and disseminating them within the whole organization.

Several scholars, for example, Jomg and Hartog (2007), recognize the importance of the employees' innovative behavior for business success. However, there are relatively few studies to identify how the virtualization within and across the organization would affect employees' innovative behavior. The research question of this study is as follows: what are the practices that enhance employees' innovative behavior in a virtual commercial organization?

This study aimed at learning practices that enhance innovativeness of employees in a virtual organization by implementing relevant practices fitting for a geographically distributed organization with different cultural backgrounds.

The remaining part of the paper is organized in the following way. First, we fix this single case study's underlining concepts: 1) innovation, 2) leadership, 3) uncontested market, 4) virtual teams and 5) knowledge diffusion. Second, in the literature part we discuss about our concepts in detail. Third, we describe the research methodology of this study. The methodology is based on an action research applying several sources of information plus several surveys, as well. Fourth, we report our empirical case. Here we first introduce the construction built on the literature review and information got in managers' interviews. Then we focus and report on the open innovation environment opportunities within a global company which is formed in a merger of the individual companies. Finally, we draw conclusions and discuss implications and further research.

## UNDERLINENG CONCEPTS OF THE STUDY

According to Håkansson (1987), innovation is interplay of knowledge between the actors, ability to apply that knowledge in practice and using the knowledge by mobilizing resources and coordinating these resources between actors with an efficient combination of firm specific technological capabilities. This paper shares Håkansson's view of the innovation that highlights the practicality, leadership and knowledge diffusion aspects.

We define the difference between leadership and management concepts. The leadership relies on influencing and inspiring employees to act and work towards goals accepted by them. The management relies on organization's activities to get people together to accomplish desired goals and objectives. The first, the leadership concept, is based on influence on people while the latter one, the management concept, is based on authority defined by an organization.

A value innovation (Kim and Mauborgne, 1996) means a strategic approach for business growth by repositioning the company from existing competition to creating a total new market. The focus in value innovations is on finding new business models instead of focusing on an existing market. The open innovation concept emphasizes the importance of sourcing innovations instead of creating innovations only with the help of in-house research and development (Chesbrough, 2003). A company should buy others' intellectual properties whenever it advances its own business model. The company needs to gain capable resources either from inside and from outside of the company but not only from inside of the company. Both concepts, the value innovation and the open innovation, support this paper's approach to study innovatiness from the employees' perspective. Not all innovations come from in-house research and development activities that help position the company to a new market place.

According to Leenders et al. (2003) there are three matters to increase the virtuallity of a team: 1) team members are less physically proximate, 2) communication occurs increasingly through electronic means and 3) the performance of a virtual team is increasingly based on lateral communication. The virtualization of teams is a quite recent phenomenon. According to the authors' experience, the cultural aspects can be the fourth item to cause even more problems in communication than geographical distances. In general the cultural cap is difficult to measure, yet it definitely exists.

Knowledge diffusion is defined as the illustration of the ideas' movement inside an organization. Knowledge diffusion is referred also to represent the flow of results of the research studies inside the organization. In this study the knowledge diffusion describes the flow of all the tacit and explicit knowledge within an organization.

## LITERATURE REVIEW

Some leadership practices advance the innovative behavior of the employees while the others can prevent it. According to Kalling (2007), the extensive management focus on coping with only everyday life (such as the short term goals and the operative issues) prevents innovative behavior. If a company concentrates only on the next quarter result, it does not leave space for resources and funding that would be needed for idea development efforts. This is in the line with Kanter's (1985) notion of patient money for innovations and new ventures. According to her, other issues that management needs to

understand within innovation process are as follows: 1) uncertainty, 2) knowledge-intensity, 3) competition with alternative courses of action, and 4) boundary crossing. Usually the too tight routine setting gives no time for management to create solid visions that would be needed to inspire employees to innovate. The knowledge diffusion inside such a company is rare and there is usually no antenna out to look for new opportunities (Burns and Stalker, 1960).

According to Drucker (1985) the "entrepreneurial management" is important both for small and large firm. For large companies the term "entrepreneurial" is the most crucial one since large companies know "management" but how to be "entrepreneurial" and use employees as source of innovation is unknown or forgotten.

The leadership practices for enhancing employees' innovative behaviour consists of hearing the voice of employees and supporting employees in their idea generation process (Jong and Hartog, 2007). Consulting the employees is a matter of concerning them as an important part of the company. This concern is reported to influence positively on willingness to innovate. The number and significance of employees based innovations can also be increased by granting freedom and autonomy for people and by maintaining a positive attitude for their ideas. This view is supported by Takeuchi and Nonaka (1986), who ask for subtle control for innovation process. An article, published in Harvard Business Review, also shares this view (Inspiring Innovation, 2002). Knowledge diffusion by sharing openly problems, needs, trends and acting as a sparring partner creates ground for innovation oriented leadership practices. Management's vision, finance and resources on innovations emphasise management's commitment for their company's development.

The commercial organization (seemingly the marketing department) proximity to markets has long been recognized as a necessity. Moreover, the proximity of the team members, for example those in R&D, to the market has also been lately regarded as prerequisite (for example Takeuchi and Nonaka, 1986). It is strongly believed that knowledge intensive commercial organizations will be increasingly distributed geographically in order to be present in the global markets. The further acceleration of this virtualization phenomenon is enhanced by the social computing technology that enables face-to-face like meetings. The increased availability of well educated and inexpensive local labor in recently industrialized countries like in China and India has drawn managements' attention to cut their research and development expenditures in industrialized countries, and, thus to increase virtualization. Lank (1997) also lists five ways to persuade employees to share knowledge: 1) individual performance and reward processes, 2) personal recognition, 3) integration with key business processes, 4) IT infrastructure and training to familiarize people with the relevant IT tools, and 5) making it as easy as possible to contribute to the knowledge base.

The companies can confront serious challenges with finding the right balance between having proximity to a market and keeping proximity inside its teams. The proximity to the market means increased virtualization of a company's organization and vice versa. The virtuallity affects especially knowledge diffusion which consequently affects the creativeness of a team. On the one hand, the proximity supports building trust, because people ask question from those they feel comfortable with but on the other hand, the lack of proximity means that collaborators might have fewer opportunities to make contacts (Leenders et al.,2003).

Leenders et al (2003) recommend that the creativeness of a virtual team can be increased by enhancing lateral communication. They state that vertical, hierarchical, communication prevents creative co-operation. If tasks in a team are not interdependent, there is no need or reason for collaborating laterally. Actively shaping and reshaping interdependencies, the communication structure of a team is altered and, consequently, the team's creativity is increased. Thus, to support creative cooperation management should avoid hierarchal communication. An organisation should also give special roles for some employees. Especially roles bringing the right people from virtual organisations to the right place are needed (Leenders et al, 2003).

**Towards innovative culture in virtual commercial organization**

It can be concluded that a company seeking their market advantages by being present globally has to maintain its creativeness and innovativeness. The literature study proposes that both knowledge diffusion opportunities and proper leadership practices are needed to maintain organizational innovative capability while virtualizing the teams. The components for a framework could also include social computing tools that reduce the virtualization caused by the geographical distance. The framework in Figure 1 describes that the number of the innovations and new ideas coming from an organization depend on the proper leadership practices and opportunities for knowledge diffusion. Virtualization by its nature decreases opportunities for knowledge diffusion. This reduction can be compensated by introducing proper social computing systems which simulate face-to-face meeting. (Leenders et al. 2003).
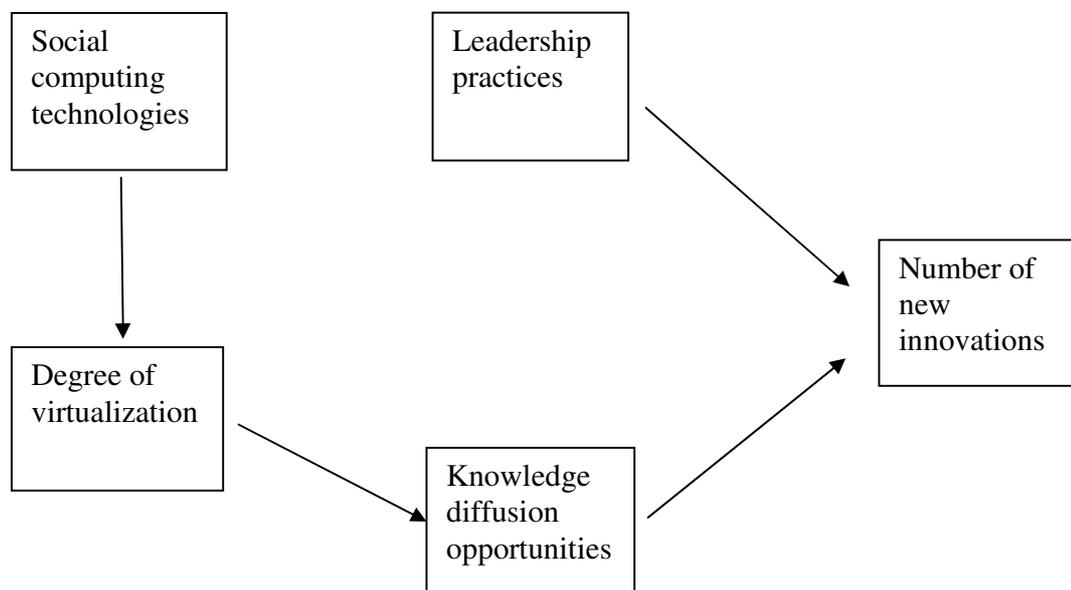


**Figure 1**: Framework to describe enablers the affecting amount of new innovations coming from employees.

## DATA AND METHODS

The research approach applied in this setup was based on action research. Action research can be undertaken by larger organizations or institutions, assisted or guided by professional researchers with the aim of improving their strategies, practices, and knowledge of the environments in which they operate. Action analytic research approach can employ case study method (Yin, 1989; Eisenhardt. 1989).

In the first phase the problems were identified with the help of interviews. At the same time the literature was studied in order to find out relevant arguments to create a framework. The literature study together with the framework (Figure 1) and the interviews formed a base to propose a construction that aimed at improving the problem identified by the organization. In total ten various managers coming from both merged organizations were interviewed several times and their ideas were collected. Figure 2 illustrates the research process in detail.
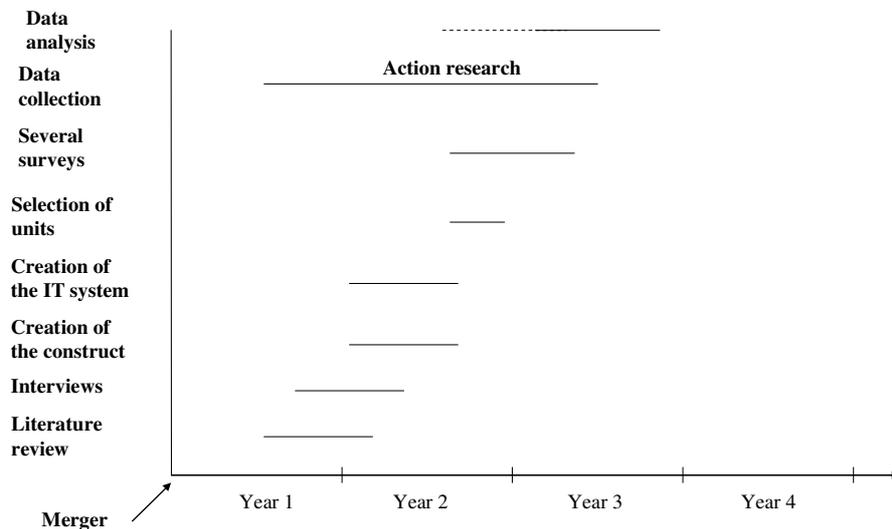


**Figure 2.** The research process.

The case company's Information Technology unit with several hundred of employees was selected to form the sample base for this single case study. The unit employed relevant leadership practices, gave opportunities for knowledge diffusion and applied social computing.

The data for this study was collected from the meetings, interviews and from the employees' surveys executed by a consultant company separately from this study. The data was also gathered from an IT system that was employed to deal with ideas coming from the sample units.

# RESULTS

## Construction for innovative commercial virtual organization

According to the literature, innovative behavior of the employees relies on mainly leadership practices and opportunities for knowledge diffusion. In order to employee the factors represented by the literature such as various leadership practices, a construction was needed to implement these factors in practice. The construction (Table 1) includes an organization structure and other practical implementation elements.

The construction consisted of four main elements. The first element was the innovation steering team that focused on enhancing the innovative behavior of the employees. Its role was to promote and implement the relevant leadership practices. This team did not discuss about individual innovation but it followed the overall progress of the implementation of the construction (Table 1) and how it was accepted by the employees. The number of new ideas was monitored. This team was common for the unit in which the approach was decided to be tested. Special attention was also put on ensuring the knowledge diffusion.

The second element was an innovation management team which aimed at supporting idea originators. The innovation management teams were subunit specific and, therefore, there were several of them. The teams supported idea originators by evaluating their idea proposals, further developing them and sparring the idea originators. The main purpose of these teams was to take an idea into a decision point, and justify the decision well. If an idea was accepted, then the team in question took the idea into the implementation phase. Each innovation management team has an idea manager who led the team.

The third element in this study's construction was an idea collection IT system, which allowed employees of the whole organization to propose their ideas into a single transaction system. The IT system was open for all employees to propose new ideas, it kept track of the ideas and helped rank the existing ideas. The literature proposes to employ intellectual stimulation by requesting ideas directly from the employees. The IT system had a feature that supported various kinds of idea campaigns' launching.

It was also decided to reward some the ideas by publicity and take-a-ways such as mobile phones etc. The management also decided allocate budget for setting-up the construction. The funding formed the fourth element in the construction.

Table 1 describes how different leadership practices emphasized in the literature were addressed in the construction. The leadership practices were expected to enhance employees' innovative behavior according to the literature.

**Table 1**: Construction to address the leadership practices emphasized by the literature

| Literature | Interview | Implementation elements | Comments |
|---|---|---|---|
| Consulting subordinates | | Idea campaigns (element 3) | |
| Sparring idea originators | | Idea managers (element 2), innovation management team (element 2) | |
| Supporting individual in their process proposing idea | | Process and IT system (element 3), innovation management team (element 2), idea managers (element 2) | |
| Giving resources, no time | No time | Allocating budget (element 4) | |
| Delegating | Empowerment: management tends to rank idea without help of experts. | Innovation Steering Team (element 4) to support leadership development | |
| Providing vision | | Idea campaigns (element 3) | |
| Intellectual stimulation | | Idea campaigns (element 3) | |
| Rewarding | | Publicity, budget allocated to implement the idea, takeaways (element 4) | |

**Case description**

The consulting company that executed several employees' engagement surveys in the case company in question proposed that the overall employees' engagement to the case company was dependent on the innovativeness of the case company. The survey result reflected the situation of the case company that was formed from a merge of the two separate companies. The merge caused insecurity among the employees about the direction of the company was planned to take. The merge had also forced the company to seek a new leader**p** style that could integrate the two management cultures. The cultures came from the mother companies. It was felt that the innovation leadership practices could provide one corner stone to construct a new leadership culture.

First the innovation steering team body was established in autumn 2009. Its job was to set-up the innovation mode of the operation. It was decided to set-up innovation management teams into each subunit of the unit in question. The idea managers were also planned to be nominated accordingly. It

was also decided to take the innovation management process and related IT system into use. The IT system allowed all the employees of the case company to propose their ideas and it kept a track of the each proposal. It was also decided to start to launch idea campaigns to collect ideas to support the unit's strategic initiatives. A number of lessons were given to introduce how to use the IT system and related processes.

The number of the ideas coming into the IT system increased steadily. Some of the ideas had been already implemented during this study. Many of the ideas were not actually rejected but some of those ideas had been decided to be implemented already before the proposals were received. Nevertheless the proposals gave new insight into the topic. The idea management team concept was well going ahead in one of the subunits and the other subunits were expected to follow.

## DISCUSSION AND CONCLUSION

The purpose of this single study was to investigate how to enhance innovativeness of the employees in a virtual organization. The literature was studied and interviews were executed. A construction was created to test the approach that was proposed, and its implementation was executed. A number of positive results were achieved. A number of the new ideas were received and some of them were expected to enhance the company's performance. It can be concluded that innovations in a virtual environment were also dependent on the leadership practices. The innovations were supported by the IT system, which had social media aspects by sharing openly ideas and gathering comments globally for the ideas. This kind openness helped achieve the goal set for the implementation.

Some interesting notes were observed during the implementation of the construction. First of all, there was a key message coming from the employees that they preferred to work in an innovative company. The motivation seems to have come from in Maslow's (1955) terms from self esteem. Because of the merger some employees felt the job security as the most important matter. Secondly, from the implementation point of view, individuals who were excited about the implementation of innovation methods and practices were important for the success of the implementation. These individuals were ready to contribute in setting-up the construction and to assist other employees in the process of developing their ideas (see innovators, Rogers, 1962 and Moore, 1995). The key role in implementing the construction was played by the IT system with its related processes which were needed to properly handle the received ideas. This was according to Lank (1997) who emphasized the systems in facilitating diffusion of knowledge.

Several roles were proposed and fulfilled by individuals in order to implement the construction. Although the budget was allocated in order to get resources the success was dependent on the individuals and how they were ready to allocate their time for this work.

It should also be noted that the ideas proposed gave a more profound view on several topics that the unit's internal customers felt important. The statistical analysis of the proposal gave an insight if the goals, set by the management, were addressed correctly in order to keep its internal customer satisfied. This was important in order to decide whether continue towards set goals or redirect them.

The further work of this study should focus on the following subjects:

- strengthening of  the theory by giving more attention to the network theory
- executing  comparisons with the other unit in which construction was not implemented
- executing  interviews on how previously interviewed employees feel now
- the role of the merger in the process. What type of merger would be working here?
- Can we generalize the situation when a small innovative company is bought by a large company?

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