IMPROVING THE EFFECTIVENESS OF MANAGEMENT EDUCATION THROUGH THE INTER-ORGANIZATIONAL NETWORK

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ABSTRACT

In this paper, we propose to improve the effectiveness of management education by means of an inter-organizational network between educational organization and companies. First we investigate the common role of educational organization and companies (i.e. human resource development) to form such network. Then we report on a case study, where we observed that several learners made progress in their company practices through the inter-organizational network; the latter allowed educational organization and companies to exchange different competences and resources in order to develop human resource.

Keywords: Management Education, Learning, Inter-organizational Network

INTRODUCTION: CRITICAL GAP BETWEEN MANAGEMENT EDUCATION AND COMPANY PRACTICE

Critical gap in "effectiveness" of management education

"Effectiveness" is one of the most critical issues in management education research, especially in management education for adult. However, there are two radically different definitions of the effectiveness that caused confusion in the research. These two definitions are rooted in the different context to evaluate the effectiveness: educational organization and company.

In educational setting, the effectiveness of education is often evaluated by learners' understanding on educational contents such as examinations and academic research reports. On the contrary, companies evaluate the effectiveness of education by practice in companies. In concrete, companies take account of an impact of educational contents on their business: how learners solve managerial problems in current business by applying acquired knowledge and skills through management education.

The difference in definition of the effectiveness caused a conflict between educational organizations and companies and resulted in a critical gap between the two. In order to close the gap, educational organizations developed many alternative teaching methods such as case study and action learning. Case study has become a major teaching method in business school that helps learners to train soft skills (e.g. strategic and analytical thinking, decision making, convincing presentation skills, etc.). Action learning and other experiential programs provide opportunity to test acquired knowledge and skills during the education. However, those teaching methods are used only in educational setting and do not directly increase the effectiveness in company practice since education and company practice is still separated process.

Bennis and O'tool (2005) proposed to balance between training on specific skills on job and creating knowledge through research. The former does not help managers who should improve soft skills such as decision making in complex situation. Results from the latter are far from the reality in companies and hence do not help managers as well. Pfeffer and Sutton (2000) described this unbalanced situation as "knowing-doing gap" and claimed that educational organizations rarely consider an implementation. Some

programs adopted experiential learning method (e.g. action learning) to solve the knowing-doing gap (Mintzberg, 2004; Mintzberg and Gosling, 2006). However, these learning methods may be helpful for the knowing-doing gap in educational setting, but do not link management education and company practice.

Developmental perspective

The gap is especially significant when focusing only on the main purpose of educational organizations and companies, i.e., education and profitable business respectively. Following those main purposes, most of researches on management education have only single focus: possible change in education or specific job training in company. To close the gap, it is worth considering a common function of the two: both organizations support career development of learners. We name this approach as "developmental perspective".

Recent researches on human resource development in companies support the developmental perspective. In human resource development, it is essential to have several stakeholders not only from inside a company (e.g. superiors, colleagues, and subordinates), but also from other organizations (e.g. personal advisor, family and friends) (Kram, 1985; Kram and Higgins, 2004; Nakanishi, 2006). Hence, it is natural to be a stakeholder for companies that dispatched employee to management education from developmental perspective. In other words, educational organization and companies have potential to form a learning environment as inter-organizational network (see Note1).

Research focus

To consider a solution to close the gap, we focus on a management education for learner who belongs to a company during a program. Hence, management education to change career (e.g. full time MBA) is not considered in this paper.

In the following chapters, we demonstrate why the inter-organizational network improves the effectiveness of management education through theoretical analysis and case study.

THEORETICAL FOUNDATIONS

This chapter consist of three parts. First of all, we depict features of learner in management education. Second, we explain the reason why individual learning requires inter-organizational network between educational organization and learner's company. At the same time, we discuss feasibility of forming the inter-organizational network by considering required incentives for educational organization and companies. At the end of the chapter, we further consider other factors that influence learning in management education and become a part of the inter-organizational network.

Learner in management education

Learner in management education is adult who has work experience. When adult joins education for acquiring new knowledge and skills, it is essential to refer the past experience (Knowles, 1998; Lindeman, 1926). Through the education, adult learner finds reasons of the past experience (Lindeman, 1926).

Adult learners also have a clear objective to have education: they are eager to improve the quality of life. In management education, learners' objective is to strengthen managerial competence by acquiring new knowledge and skill to improve the quality of business life. There are two types of improvement in management education: hold valuable

qualification for promotion (i.e. career change) and solve managerial problems in current business (i.e. company practice). The latter is our focus in this paper.

For the latter learner, it is critical to have learning environment in their companies. Unique features of knowledge explain the reason why they need the learning environment in the real setting. Knowledge mainly has two categories: Explicit and Tacit. Explicit knowledge is suitable to articulate such as manuals while tacit knowledge is personal and difficult to articulate (Polanyi,1966; Eraut,2000; Burmard, 1999). To acquired tacit knowledge, learners require a face-to-face communication with a person who holds the tacit knowledge (Nonaka and Takeuchi, 1996).

Tacit knowledge also exists in situation (organization, company, society etc.) as norm, culture and customs. The tacit knowledge is "sticky" and embedded in the situation (Badaracco, 1991). Learners should participate in the situation as it is possible to acquire only through a direct experience (Lave and Wenger, 1991). Managerial knowledge and soft skills composes much of tacit knowledge. Therefore, learners require the learning environment in their company to have the direct experience. As a result of company practice, adult learner will accumulate experience, i.e., tacit knowledge to improve the quality of business life.

Learners in management education refer and accumulate experience in learning. As experience is buried in learner, learners require being autonomy. The autonomy, self-directed learning, is one of the most important elements of adult learning (Knowles, 1998; Merriam et al., 2001). However, it is not easy to be fully autonomous from the beginning of learning. At the beginning of education program, learner will be passive if it is totally new contents. Cranton (1992) suggested shifting initiatives in learning from faculties (i.e. other-directed) to learners according to learners' maturity. At the end of transition, faculties and learners have interaction and learning becomes mutually-directed (Cranton, 1992). Hence, management education is continuous and interactive.

When learner tries to apply acquired knowledge and skills to company practice, he/she requires understanding and cooperation from people in his/her company. However, little is known about how company could support learner's company practice. Different from job training inside company, it seems to be difficult to judge whether the company practice is plausible for the company. According to Kim (2002), learners in management education had conflict with superiors when they tried to apply their acquired knowledge and skills. As a result, those learners left companies with disappointment and irritation (see Note 2).

Summarizing above, learners in management education are basically self-directed and object-oriented in management education. It is prerequisite for learners to interact with educational organization and companies to acquire and accumulate tacit knowledge that forms managerial competencies.

Learner, organization and inter-organizational network

As we pointed out earlier, both educational organization and company has an important role for learners in management education. There seems to be a dynamic interaction between individual and organization(s) in learning.

Argyris and Schoen (1974, 1978) considered a relation between individual and organization on learning. They presumed that "organization does not perform the actions that produce the learning. It is individuals acting as agents of organizations who produce the behaviour that leads to learning" (Argyris, 1992). They advocated that organization learning composes following two types of learning: single-loop learning and double-loop learning. In single-loop learning, individuals try to fix problems in outcomes they produced through actions. It is suitable for a training to acquire specific skills as individuals do not need to doubt norms that influence their action. On the

contrary, individuals modify or change norms in double-loop learning. Individuals take new actions based on revised norms to produce appropriate consequences. Therefore, it is more relevant for the complex, non-programmable issues (Argyris, 1992).

Referring single- and double-loop learning model to management education, recent experiential programs (e.g. case study, action learning) seems to encourage only single-loop learning in educational setting. Educational organization and companies have different norms. Moreover, reality in companies is complex and non-programmable. Learners require considering, modifying or changing norms to solve problems in company practice. Therefore, double-loop learning occurs only through company practice. For these reasons, learning only in educational organization can not guarantee the effectiveness of management education for companies. In short, it is critical to have a linkage between educational organization and companies, i.e. inter-organizational network, for learners in management education.

Inter-organizational network is a basis to exchange different competence and resources for organizations (Teramoto, 1990). In our targeted management education, an individual learner belongs to educational organization and a company at the same time. However, there is a critical gap between the two organizations rooted in different main purposes: education and profitable business respectively. Our approach, the developmental perspective, focuses on a common purpose to develop human resources. In the developmental perspective, these two organizations would keep their main purpose in education and business while being connected through human resource development. In other words, educational organization and companies would exchange different competencies and resources by developing human resource via the inter-organizational network.

Educational organization and companies require incentives to form the inter-organisational network. Teramoto and Nakanishi (2001) identified phenomena that individuals often belong to several organizations and named it "Multi-affiliation" (Fuku-zoku-sei in original Japanese). Multi-affiliation is a convincing concept for educational organization and companies to form the inter-organizational network.

Numerous researchers have emphasised a positive effect of multi-affiliation to organizations: Individual's multi-affiliation form inter-organizational network that lead company's profit. For example, gatekeeper has wide networks both internal and external of his/her organization. The networks work as a database and source of information. Through the networks, the gatekeeper conceptualizes creative and innovative solutions for company's problems (Allen, 1977). Process Engineers in different companies share critical information about technologies to have common profit by escaping unnecessarily competition between companies (von Hippel, 1988). Both gatekeeper and process engineers built network for their personal company practice, but it resulted in a profit for their companies. In short, individual's multi-affiliation result in profit for organization where individual belongs to. Therefore, educational organization and the company would have incentives to form the inter-organizational network.

Summarizing discussions above, inter-organizational network between educational organization and companies is prerequisite for learners in management education as it provides opportunity for double-loop learning. At the same time, both organizations could expect profit by exchanging different competencies and resources through the inter-organizational network. Therefore, it is feasible to form the inter-organizational network and it makes sense to consider improving the effectiveness of management education through the inter-organizational network.

Other elements of inter-organizational network

The inter-organizational network would not only consist of educational organization and a company. It would include other organizations influence individual's learning. As seen

in networks of gatekeeper and process engineer, professional community (e.g. conference, meeting) and business partners could be a part of the inter-organizational network.

From our developmental perspective, it is worth considering varieties of stakeholders in management education. In human resource development, colleagues have an important role as "peer" who has similar length/depth of experience in business and give advice each other (Kram, 1985). Alumni would be a part of the inter-organizational network with the peer function. Episodes in company practices of other learners should be inspirable references.

CASE STUDY

Methodology

To investigate effect of the inter-organizational network on management education, we conducted a case study to a concrete management education program (X-MOT). Case study is appropriate to investigate a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 1990). Our focus is learning in management education that occurs in between educational organization and companies. It is not evident how learning in several contexts and the effectiveness of management education relate. Therefore, we considered the case study is appropriate for our research.

Selection of sample is critical for the case study. We chose X-MOT for the following reasons: (1) X-MOT is a management education for adult, (2) Companies dispatch learners at X-MOT and learners stay in the same company before and after the program, and (3) purpose to participate X-MOT is to apply acquired knowledge and skills to problems in companies.

We gathered data from October 2004 to October 2006 on class of 2004. To understand a transition in forming inter-organizational network, we investigated one learner (learner-A) and the learner's company practice in details through participative observation and interviews. At the same time, we conducted a follow-up survey on several other learners by interviews and questionnaires.

Through answering following three questions, we consider the effectiveness of management education and a mechanism to form, maintain and activate the inter-organizational network.

- **Question 1 (The effectiveness of management education in business)**

 How learners did change problems in companies through a company practice? Did company practice have impact on business? If so, what were indicators of the impact?

- **Question 2 (Incentives to form inter-organizational network)**

What were incentives to form the inter-organizational network for educational organization and companies?

- **Question 3 (Other factors of inter-organizational network)**

 Were there other factors to form, maintain and activate the inter-organizational network?

Overview of X-MOT

X-MOT is a non-degree Management of Technology (MOT) program held every second weekend for 6 months, targeting on middle managers in local small and medium size engineering companies. It was originally proposed by the third sector (HR-Center)

to support local companies by providing opportunities to learn latest management theories, methods and approaches. HR-Center and local educational organization (Institute-X) collaboratively design the program. 10 to15 middle/top managers join the program each year.

The program has a very specific objective: All learners plan to apply acquired knowledge and skills to specific concrete managerial problems. More importantly, superiors in learners' companies officially back up the plan. X-MOT and learners' companies build a consensus on the contents of program, plans, and back ups before starting the program. At the end of the program, learners present a progress of the plan in front of all stakeholders (people from HR-Center, Institute-X, companies, and other guests) to have feedback for further development.

Findings

Independent learning

More than half of educational contents at X-MOT are theoretical basis and provided by lecture such as knowledge management, strategy, accounting, and systems science. As most of contents were quite new to learn, learners were usually passive during lectures. However, it was not just passive learning, but learners often remembered past events in their companies during lectures. One of the learners (Learner-B) described the situation as follow as:

"I could not express well what was happened to me, but I often felt cleaning the fuzz out of my head during lectures. I remembered past events in my company while faculties explained theoretical concepts, and suddenly understood meaning of actions I took in these events."

Faculties' comments sometimes triggered new action in learners' company practice. Another learner (Learner-A) had problems in a product development with a garbage machine. Though his company had long experience in assembling and highly evaluated by clients as OEM, it was almost the first experience to develop original product. Moreover, ecological product was totally new field of business. Especially, he had difficulties to control temperature and humidity inside the garbage machine for active resolution by bacteria. In knowledge management lecture, he learnt a new concept that helped him to understand his problem situation: tacit knowledge.

Before the lecture, Learner-A had been trying to control the garbage machine by sensor and technical controller. However, bacteria behave randomly according to garbage and weathers. As a result, he could not find a solution to adjust appropriate conditions. After knowing tacit knowledge, he changed the approach: he should judge bacteria's condition intuitively as bacteria is living-things. Together with "soft" skills, he could make full use of sensors and technical controllers to adjust appropriate conditions. He and his colleagues have been training to judge conditions and now they accumulate tacit knowledge to manipulate the garbage machine.

"I feel as if I understand how bacteria think about the condition by touching, smelling, and observing wooden chips. I would not have the idea to improve these soft skills without attending the lectures. It seems that I was too much familiar with engineering approach and never doubt its accuracy."

In these episodes, learners were inspired by faculties but independent in learning. In the former example with learner-B, learning occurred in educational setting with referring his past experience in the company. Learner-A's learning occurs in wider ranges of learning environment: from an educational setting to a company practice. Independent learning seems to occur both in educational organization and companies that resulted in learners' deeper understanding and new actions in daily business.

Interactive learning

Together with the independent learning, learners had interaction with stakeholders in X-MOT and companies.

Learner-A's problem was not only the development, but selling 200 garbage machines in stock from the first production. They had critical problems with adjusting internal conditions, deodorizing, and draining. Learner-A thought he was not allowed to sell them before finding ideal solutions for improving these problems.

One of the faculties had experience in venture business with bio-technology. When leaner-A asked him to give advice on the garbage machine, the faculty wondered why learner-A kept 200 garbage machines in stock. And the faculty simply asked "Why do you keep them in stock? Is it for testing? ".

Learner-A could not understand reasons why the faculty asked him about the stock at the beginning. Learner-A thought it was obvious that he would keep in stock until he found a right solution to improve the garbage machine. However, the faculty seemed to have different idea. Learner-A slowly understood the reasons through conversation with the faculty about bacteria. As bacteria are influenced easily by user's condition, i.e. contents of garbage and climate, garbage machine would require adjustment according to customer's environment in any case. Therefore, it does make sense to find customers first and improve the machine with feedback from the customers. Interaction between learner-A, the faculty and customers resulted in a new business model for learner-A's company.

Another learner (Learner-C) had an idea to launch a technology sales team to propose original products. His company engaged with OEM business. Therefore, the company did not have a sales department and had a business partner responsible of sales.

Learner-C did not know much about sales as he had been working as engineer. During X-MOT, he learnt many management tools for business analysis and decision making. He challenged to adopt all of them to analyze current business and competencies, elaborate the idea in details, and plan actions to realize the idea. Through the challenge, he communicated with faculties and had feed backs.

At the same time, Learner-C brought the idea into company practice. He involved a business partner responsible of sales and proposed to collaboratively launch sales and marketing team. As the business partner was a professional in sales and he was chief engineer, their approach became unique: sales with a technical demonstration. As a result of the unique approach, the team acquire 7 new customers out of 13 trials.

These two episodes with learner-A and learner-C depict features of interaction between learners, educational organization and companies, i.e. interactive learning.

Alumni activity

Another unique feature in X-MOT was alumni activity. After the program, learners started monthly meeting to visit companies each other. Membership was not limited within X-MOT, but people from learners' companies, business partners, and other guests were welcomed. In the monthly meeting, a host company proposed a discussion theme about its problem situation. Participants of the meeting discuss solutions to the problem situation with applying acquired knowledge and skills through X-MOT. In short, the monthly meeting is an opportunity to communicate with other learners and stakeholders. At the same time, it helps learners to maintain acquired knowledge and skills.

Other learner (Learner-D) could not apply acquired knowledge and skills to a company practice. The reason is that the learner's company expanded a business that was not the same field of work as his company practice. Therefore, he had to concentrate on the new business after his graduation from X-MOT. Though he could not apply acquired knowledge and skills at that time, he attended the monthly meeting every month to discuss managerial problems with other learners and stakeholders. Through the monthly meetings, he maintained soft skills. The monthly meeting also helped him to keep motivation to a company practice since other learners reported their progress in company practices in the meeting.

The alumni network has another function. It is an opportunity to expand inter-organizational network. One of the learners (Learner-E) invited a business partner, company-Y, to the monthly meeting. Company-Y was a specialist in ecology business and gave advice to learner-A, who has problems with garage machine, during the meeting. Company-Y organized a study group with other company in ecology business and invited learner-A. Through a communication in the study group, Learner-A found a current business partner that resulted in a breakthrough in improving the garbage machine.

In the monthly meeting, participants visit factories or companies' unique business place (e.g. laboratory, brain storming room etc.) to know the host company better. After the visit, they discuss managerial problems of the host companies and propose solutions. It is a precious opportunity for the host company to have objective diagnosis.

Stakeholders can also attend the monthly meeting. Learners instruct them how to utilize management tools and approaches to their superiors and colleagues through the discussion on host company's managerial problems. It helps learners to share acquired knowledge and skills with superiors and colleagues.

Summarizing above, there seems to be three major purposes in the alumni network: (1) opportunity for a communication between learners and stakeholders, (2) continuous training for learners (3) expanding the inter-organizational network.

DISCUSSION

We discuss the effectiveness of management education and incentive to form, maintain and activate inter-organizational network according to three questions mentioned in the previous chapter. At the end of the chapter, we state our conclusion of this paper.

Concerning to the Question 1 on the effectiveness of management education in business, there seems to be two types of impact on business: recognition and action. X-MOT consisted of independent and interactive learning both produced positive effect on learners' company practice. In the first example with learner-B, the learner understood meaning of actions he took in the past through independent learning. It is impact of X-MOT on business in recognition. On the contrary, impact on business in action occurred both in independent and interactive learning. Learners (Learner-A, Learner-C, Learner-D) could take new actions on their company practice to solve managerial problems.

HR-Center and Institute-X designed X-MOT to unite educational organization and companies. Learners apply acquired knowledge and skills through company practice and report a progress as a part of the curriculum. Superiors in learners' companies officially supported the company practices. In short, it is a designed incentive to form the inter-organizational network. Through the company practices, several learners radically changed problem situation. For example, learner-A found acquired a new business model through the discussion with the faculty who had experience in bio-venture business. It seems that companies have strong incentive to form the inter-

organizational network through a company practice programmed in the educational organization. Through the company practices, X-MOT accumulated successful cases that proof the impact of management education on business. As a result, X-MOT could assess effect of management education not only on educational setting but on business.

We also identified unique features of the alumni activity of X-MOT. Alumni network was a part of the inter-organizational network that enhanced company practices. Learners tend to forget acquired knowledge and skills if they do not use after management education programs. The monthly meeting was helpful for learners of X-MOT to maintain acquired knowledge and skills. At the same time, alumni network enhances communication between learners and other stakeholders as seen in the example with learner-E, company-Y and learner-A. In other words, alumni network was a catalyst to activate inter-organizational network.

CONCLUSION

In this paper we propose an approach to close the gap between educational organization and companies based on different definition of the effectiveness of management education. By focusing on a common function in human resource development, we challenged to close the gap. We named this approach the developmental perspective.

From the developmental perspective, learners in management education require inter-organizational network between educational organization and companies to acquire managerial competencies. Educational organization and companies also have incentive to form the inter-organizational network since they can exchange different competencies and resource through the network.

Inter-organizational network seems to have several key factors to improve the effectiveness of management education. First of all, inter-organizational network is a basis of company practice where learners apply acquired knowledge and skills through management education to managerial problems in companies. Second, companies could expect direct contribution from the educational program if learners' company practice happened in the inter-organizational network. At the end, educational organization could assess the effectiveness of management education by learners' company practices.

FUTURE RESEARCH

In our paper, there are three issues that must be further investigated. These issues are (1) Relation between individual and organization learning, (2) geographical influence on management education, and (3) durability of inter-organizational network.

In this paper, we referred Argyris and Schoen's learning model that consider organization learning through individual's learning. Some researchers criticized the model as it could not explain assumable effect in organizational level that would be more than the sum of individuals' learning. If several learners from the same company participate in management education, interaction of these learners' would not be just the sum. We must consider inter-organizational network on organizational level in the future.

X-MOT was a management education program for small and medium size companies in a local city. Therefore, it was convenient for learners to gather regularly. When considering management education for learners from different locations, alumni network may not work as in the case. They would need to another solution to maintain and activate the inter-organizational network (e.g. web-based discussion).

In the case study, inter-organizational network enhanced the effectiveness of management education. In general, network is not stable. Network will change according to purposes, memberships and goals. When inter-organizational network consist of other stakeholders, it may have a relation with business contract. If it is happen, the network would be more formal and stressed. Maintaining and activate inter-organizational network will be a challenging task.

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NOTE

1. We use "inter-organizational network" to describe the situation that several organizations are linked for learners' development. We dare escape using "inter-organizational learning" for the following reason: there are two different constructions on the term: network members learn within two or more organizations, and learning by group of organizations (Knight and Pye, 2004).

2. Kim surveyed Japanese graduates from MBA programs in the U.S.A. The graduates were all dispatched by companies and returned to the same companies after finishing the programs. Interviewed graduates wished to apply acquired knowledge and skills in company practice. However, they left companies when companies did not find it worth applying. Kim named this conflict the "reverse-shock". As adult learning, the reverse-shock is problematic. According to Kim, it is critical for companies that they recognize what they require from educational programs when they dispatch employee.

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