Strategic management with learning from failure: A Case Study on Sagikyo Corporation in Japan

Sanetake Nagayoshi
Shizuoka University
Shizuoka, Japan
sanetake.nagayoshi@gmail.com

Jun Nakamura
Shibaura Institute of Technology
Tokyo, Japan
jyulis@gmail.com

ABSTRACT

Every company can fail when they make an attempt on a new challenge, and it is quite important to learn from the failure in order to avoid repeating it and improve their organizational capability. Unfortunately, few companies have been good at learning from failure. In this paper, we briefly showed a unique company in Japan, which had succeeded in establishing their system for learning from failure, and improved their performance and had sustained their competitiveness. We studied their strategic management, which optimized the organization with their learning activity from failure.

Keywords: Learning from failure, Strategic Management, Alignment

INTRODUCTION

There was a unique company in Japan, which has succeeded in establishing their way for learning from failure. The president in the company said they had never repeated same failures after reviewing them through their learning system, and eventually they improved their business performance and sustained their competitiveness.

Many people know importance of learning from failure, and most managers want their organization to do it in order to improve their performance. It is important to learn from successful case study, but it is more important to learn from failure (Edmondson, 2011). Madsen and Desai (2010) find that organizations learn more effectively from failure than success, that knowledge from failure depreciates more slowly than knowledge, and that prior stocks of experience and the magnitude of failure influence how effectively organizations can learn various forms of experience.

We should note that there are few organizations, which are very good at and succeed in learning from failure (Cannon and Edmonson, 2005). Companies have invested significant money and effort into becoming leaning organization with ability to learn from failure struggle with day-to-day mindset and activities of learning from failure (Edmondson, 2002).

We assume that there are a lot of company executives who are eager for their company to succeed in learning from failure for business performance improvement. Since there are however also a lot of barriers to conduct learning-from-failure activity in organization, it is difficult for them to get through the activity. Thus they need a strategy for learning from failure. But it unfortunately seems to be veiled; we cannot refer the key for learning from failure. Thus a lot of companies still straggle with learning from failure.

We apply, in this paper, the Japanese company, which has succeeded in establishing their system for learning from failure and improved their business performance. We explore keys for success in learning from failure from the point of strategic management.

The purpose of this paper is to provide a referential case study toward a success in organization learning from failure. We here set a general research question for the purpose in this paper. "What is the strategic management in Sangikyo Corporation (2016), which has succeeded in learning from failure?"

RELATED STUDIES

Saavedra, Fernandez and Lindemann (2015) suggest a comprehensive model for knowledge application. In the model, knowledge transfer is influenced by factors related to the company's infrastructure like organizational roles, stabling teams and IT system. Knowledge integration/creation is influenced by factors related to knowledge itself, which are knowledge affinity, depth and breadth. Knowledge application is influenced by socio-psychological factors, because it is personal decision whether a person apply available knowledge or not. They, however, do not mention the strategic alignment in detail although they cite Zack (1999), which suggests influence to the infrastructure-related factors, knowledge-related factors and psychosocial factors.

In this regard, we have one question that what is strategic alignment in knowledge management, especially learning from failure.

The infrastructure-related factors include organizational infrastructure (Saavedra, Fernandez & Lindemann, 2015). On the contrary, Carmeli (2007) suggests barriers for learning from failure like this:

> *Failure and fault are virtually inseparable in most households, organizations, and cultures. Every child learns at some point that admitting failure means taking the blame. That is why so few organizations have shifted to a culture of psychological safety in which the rewards of learning from failures can be fully realized. When you feel psychologically safe, learning from failures is enabled.*

Ardichvili and Page and Wentling (2003) study motivation and barriers for knowledge sharing and suggested it is necessary to develop various type of trust for removing the barriers. Li and Chang, et al. (2014) test previous studies and conclude strong tie in organization, trust and common cognition are influencing factors for knowledge transfer.

It seems to be a key strategy to establish strong tie, trust and common cognition in organization for conducting well learning from failure. Here we also have another question that how we can establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy.

Nagayoshi and Nakamura (2015a) have already explored the motivation and remover of barriers for learning from failure in the company. And Nagayoshi and Nakamura (2015b) have explored encouragement for knowledge application and positive feedback loop in the company. The IT system in the company was also mentioned in Nagayoshi and Nakamura (2015a, 2015b). But we were unfortunately not able to reach a study, which mentions the relationship between business strategy and learning from failure. Thus here is necessity to explore a strategy in learning from failure.

RESEARCH QUESTION

We already mentioned the general research question in this paper as "What is the strategic management in Sangikyo Corporation, which has succeeded in learning from failure?" And we here decompose it into two subjective research questions based on the related studies in the previous section.

The first one is strategic alignment related question, as "What is alignment between business strategy and learning from failure in the company?"

The second one is strong tie, trust and common cognition related question, as "How can we establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy in the company?"

RESEARCH METHOD

Since a lot of company executives do not disclose their organization's failure experience, there are unfortunately so few available cases to study that we cannot have enough knowledge about the way to succeed in learning from failure. In this paper, thus, we need to do a case study in detail.

We conduct a qualitative research with a case in the Japanese company named Sangikyo Corporation (2016). First of all, we introduce the learning-from-failure activity in Sangikyo Corporation in the next chapter. Second, we analyze the case from the point of alignment between their business strategy, their learning-from-failure activity and work style. Third, as discussion, we explore a strategic reason for them to conduct learning-from-failure and the way to create strong tie, trust and common cognition in the company.

Since the case itself was however already introduced in Nagayoshi and Nakamura (2015a, 2015b, 2015c) in detail, we provide a brief description in the next chapter in this paper. We would like ask you to refer the articles if you wish to know the detail. For the sake of reader's convenience here, we show a summarized description from Nagayoshi and Nakamura (2015a, 2015b, 2015c) in the next chapter.

CASE

Sangikyo Corporation was founded in 1965 primarily as a company, which dealt with engineering services for installation and maintenance of microwave communication systems. The President thought new challenge sometimes led them failure, but also thought it important to avoid repeating the same failure. They accumulated 41 failure cases and lessons learned from them since 2005. Mr. Sengoku, the president, and Mr. Tokunaga, a director at Sangikyo Corporation emphasized that they had never had the same failure they examined in the task forces since they started them. The notable points are following;

- An employee who faulted and/or made an incident causing failure was appointed as leader in a task force team.
- The leader of the task force team conducted the task force team, made a report and deployed it through their knowledge sharing platform to all the employees
- The report included verification, causal analysis and countermeasures of failure, and in which all data including name of leader in task force and customer, and number of lost money was revealed
- At the same time, they also disclosed a report to related customer who was suffered from the failure, and they got trust and further business from the customer again

- All the employees were able to browse the reports through their knowledge sharing platform anywhere to avoid the same failures
- Sangikyo Corporation implemented an appraisal system in which employee was evaluated not mainly on his/her personal individual performance but mainly on his/her skill
- Company executives in Sangikyo Corporation had tried to build their capability for new business development by applying learnings in task forces

<div align="center">CASE ANALYSIS</div>

Environment Analysis

The company focused on engineering services for installation and maintenance of microwave communication systems, and their customers were companies like wireless telecommunication service providers in Japan.

This industry grew rapidly between late 1990s and 2000s. The number of subscribers in Japanese mobile companies increased from 8.7 million in 1996 to 152.9 million in 2015 based on Telecommunication Carrier Association in Japan. The amount of the capital investment in equipment from 2004 to 2013, during which the task force activity had been taken place, in Japanese communication industry was stable as shown in Figure1.
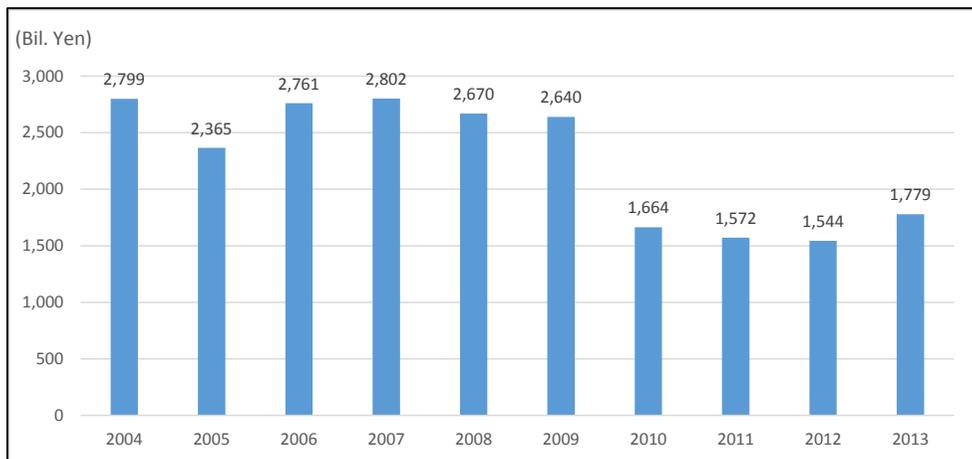

Figure 1. *Capital Investment in Japanese Communication Industry*

Since the industry had been growing during the period in terms of the number of subscribers in Japan, a key factor for success in the mobile industry in Japan was capability to provide stable and attractive service to customer. Accordingly, the mobile service companies invested huge amount of money on new equipment to provide stable and good quality of attractive wireless communication service. And they needed a new technology to provide attractive service to customer. Thus a key point to win in the industry was assumed to have a capability to install new technology, which also advanced rapidly, earlier and faster than competitors.

One of the issues was how they implemented the new technology, which was necessary to provide an attractive service and was not established yet. They had a risk to fail in implementing the technology because there were few proven methods for successful installation. Japanese mobile companies were seen to be so conservative that the employees did not want to take risk to select a new technology, which was not proven very well. On the other hand, one key for success was implementing a new technology to provide good, stable and attractive service to customer. Thus they had a dilemma between risk avoidance for their safe and risk taking for attractive service.

Business Strategy of Sangikyo Corporation

Sangikyo Corporation found a business opportunity in the conflicting situation in a mobile service company in Japan. They found that mobile service companies sought for a partner company who took a risk to have a new technology and to implement it on behalf of them. For this reason, Sangikyo Corporation took a risk to have a new technology, and provided implementation and maintenance service with Japanese mobile service companies. Sangikyo Corporation, however, sometimes failed because they dealt with a new technology, which was not proven very well. They had to accumulate knowledge through experience with the technology in order to prevent defect.

Learning-from-failure activity and the business strategy in Sangikyo Corporation

Since Japanese mobile service companies were also assumed to know that failure might sometimes happen due to little proof, they justified in making one just time fault. It was quite important for Sangikyo Corporation to avoid repeating same failure in order to succeed in the business, thereby the learning from failure was a key success activity to win the business in Sangikyo Corporation.

The number of mobile service companies was four in Japan, and it was also quite important for Sangikyo Corporation to retain customers. Since it was a key success factor to continuously do business with same customers for long time, Sangikyo Corporation needed to be trusted from the customers by accumulating technical knowledge in new technology, which mobile service company did not want to deal with. With this regard, it was also important for Sangikyo Corporation to accumulate knowledge acquired by their learning activity. Figure 2 shows that the learning from failure in Sangikyo Corporation was their operational strategy for achieving their business strategy.
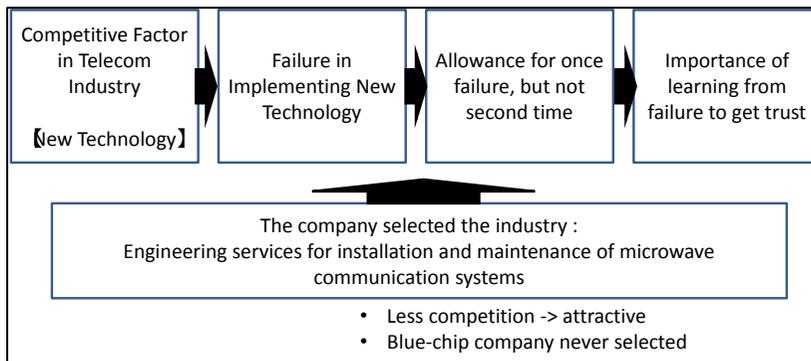

Figure 2. *Learning from failure as an operational strategy in the company*

Rule, System and Infrastructure for the learning from failure

It was also necessary for Sangikyo Corporation to build organizational learning system for learning from failure, and they started the task force activity for reviewing and counter measuring failure. Their appraisal system was seemed to be suitable for their learning activity, under which employee in the company was evaluated based more on personal skill than on individual performance. When employee contributed to provide important knowledge and/or organized a learning task force team well, he/she was recognized a skilled personnel. Thus employees were willing to dedicate their time to the learning activity. Their annual reward was also decided based more on company performance than on individual performance, so that employee provided their knowledge to improve company performance. In addition, employee, who contributed to provide knowledge and/or who showed an excellent performance in learning task force activity, might get a prize.

They had knowledge sharing platform named Cyber Manual (Sangikyo Corporation, 2016) to accelerate sharing knowledge among employees, which seemed to be useful to deploy knowledge learnt from the learning activity to all the employees in the company.

Collaborative task in the company

Most tasks in the company were generally achieved through multiple employees' collaborative work. They shared one task with colleagues and sometimes work in shifts.

Any employees could make a fault leading business failure because they shared job and work in shifts. Even if a certain employee by chance makes a fault today, any other employee could make the same fault if he/she works on the job in his/her shift. Employees in the company, in nature, were so eager to prevent from doing a fault that they had to learn how to avoid a fault. Thus they learn from their colleagues' fault.

Content in the knowledge-sharing platform

Content in the knowledge-sharing platform was interesting for employee. We asked the entire employee in Sangikyo Corporation to answer the following question; "Do you visit the learning from failure site on Cyber Manual because it shows insightful and useful knowledge for your daily job?" Answer formulation was Likert scale type from "-3(Not at all)" to "+3 (Yes, definitely)". We asked 900 employees in Sangikyo Corporation in September 2015, and we received 829 answers in October 2015. Figure 3 shows the reason why employee visited the website on the knowledge sharing platform.

The employees in the company visited the knowledge sharing website because the posted contents were directly related and useful to their daily job. The knowledge sharing site provided valuable knowledge which was directly useful to their daily job, and they were able to solve their problem. We can assume that direct relation to job was the reason because employee was interested in the knowledge learnt from failure. Thus we find that employee visited the website because the posted contents were directly related and useful to their daily job
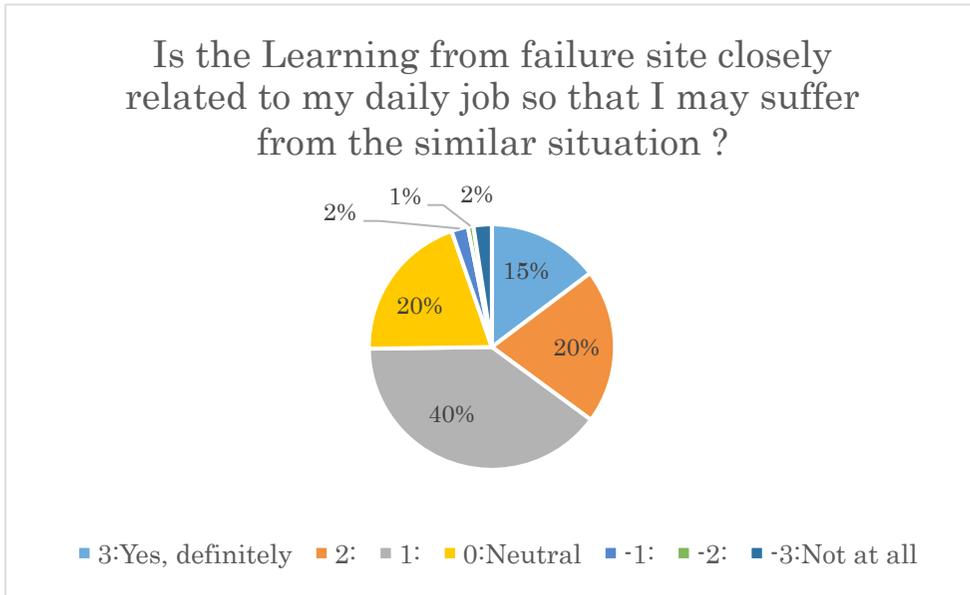
Figure 3. *Reason why employee visited the knowledge-sharing platform*

Interdependency in knowledge sharing

Employees in the company wanted to have knowledge to prevent them from doing a fault, and they were able to have knowledge through the knowledge-sharing platform only when colleague kindly disclosed the knowledge on it. If a faulting employee did not disclose his/her fault, his/her colleagues were not able to have the knowledge to avoid the same fault. Even if the faulting employee made the fault today, he/she might make another fault tomorrow. In other word, only when a faulting employee willingly disclosed his/her knowledge for prevention, he/she was able to reach colleagues' knowledge for other prevention. Hence there was interdependency, which lead preventing colleagues from repeating same fault. Then the relationship among employees in the company got stronger into a strong tie, trust and common cognition, which meant willingness to contribute for the organization.

DISCUSSION

Strategic alignment between the business strategy and the learning activity

We discuss the analysis to answer the research questions. The first research question in this paper is "What is alignment between business strategy and learning from failure in the company?"

Sangikyo Corporation decided to belong to the wireless engineering industry, which grew rapidly. The mobile service companies which wanted to have a partner company providing a new technology and its implementation service. Since the new technology was not proven, even the partner company sometimes failed. Sangikyo Corporation as a partner company established their own system for learning from failure for preventing themselves from repeating same failure with accumulated knowledge.

There were a limited number of mobile companies in Japan, and the initiative was to get trust from the limited number of customers in the mobile industry and to get continuous business. In addition, they set internal management system like appraisal system, which was suitable for the learning system and built the knowledge-sharing platform. Consequently, there was optimized alignment among their business strategy, providing service, operation, internal management and IT infrastructure.

As far as the case analysis, it was important for the success in their learning from failure in the company to keep consistency among business strategy, providing service, operation, internal management, IT infrastructure.

Generating a strong tie in the company

The second research question is "How can we establish strong tie, trust and common cognition in organization for conducting learning from failure regarding business strategy in the company?"

First of all, there was interdependency for learning knowledge for preventing from fault. Only when employee disclosed their knowledge, he/she was able to have other knowledge for prevention. This was assumed to be one of the key factors to generate a strong tie, trust and common cognition.

Second, the appraisal system and company executive message were assumed to be important to make mutual trust for knowledge sharing. Ardichvili and Page and Wentling (2003), Li and Chang, et al. (2014) mentioned trust is important to remove barriers for knowledge sharing. The appraisal system, under which employee was evaluated based on skill and company's performance, removed individualism and got them to contribute to their colleagues and the company. In addition, the executive message encouraged them to get forward to collaborative learning from failure. This was also assumed to be one of the key factors to generate a strong tie, trust and common cognition.

IMPLICATION

Saavedra, Fernandez and Lindemann (2015) suggest a comprehensive model for knowledge application. It, however, lacks detail explanation for strategic alignment. In the previous section, we argued the importance of optimizing alignment among their business strategy, providing service, operation, internal management and IT infrastructure for the success of learning from failure in the company. This may help to validate the model.

And the model should be adjusted even if our findings can be applied to the model, which is for knowledge application, because our findings are related to the learning from failure in the company. Although Saavedra, Fernandez and Lindemann (2015) show strategic alignment affects infrastructure-related factors, infrastructure-related factors, knowledge-related factors and psycho-social factors, it should be a strategy that affects the factors, and all the factors including strategy should keep mutually optimized and aligned each other.

CONCLUSION

In this study, we explored strategic management for the learning from failure with the study in the Japanese company, and discussed their strategic management with the learning from failure. Although strategy so highly depends on business environment and context that it is different from company to company, it is suggested to be important to

keep consistency among business strategy, providing service, operation, internal management, IT infrastructure.

First, we studied their learning-from-failure initiative from the point of business strategy. We found that they implemented to execute the learning-from-failure initiative for achieving their business strategy, and they also implemented internal management and IT infrastructure for executing the learning-from-failure initiative.

Second, Li and Chang, et al. (2014) test and conclude strong tie in organization, trust and common cognition are keys for knowledge transfer, but we had not had a clear knowledge for the way to build them in organization. And we explored it through the case. Since employee in the company shared their task with colleague, every employee could make the same fault that colleague made. We found that there was interdependency among employee for preventing fault and they shared their own knowledge - even failure experience - for doing it. This seemed to be a key for building a strong tie in the company.

The findings in this study rely just on a single case study, which is qualitatively analyzed in this paper. McLaughlin, Paton and Macbeth (2008) find that barriers impact on organizational learning take place at process level rather than organizational level. Ranjbarfard, Aghdasi, et al. (2014) suggest barriers of knowledge generation, storage, distribution and application are different between organizations such as gas and petroleum. Hence the result we can have from this paper may be applicable only to the case company.

To generalize the findings we must do more sufficient research not only from qualitative perspective but also from quantitative perspective beyond this paper.

ACKNOWLEDGEMENTS

REFERENCES

Ardichvili, Alexander. Page, Vaughn & Wentling, Tim (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management* Vol.7. (1), 64-77.

Ariño, Africa & Torre, Jose (1998). Learning from failure: Towards an evolutionary model of collaborative ventures", Organization Science, Vol.9. (3), 306-325.

Cannon, Mark D. & Edmondson, Amy C. (2005). Failing to Learn and Learning to Fail (Intelligently): How Great Organizations Put Failure to Work to Innovate and Improve, *Long Range Planning*, Vol.38, 299--319.

Carmeli, Abraham (2007). Social Capital, Psychological Safety and Learning Behaviors from Failure in Organizations, *Long Range Planning*, Vol.40, 30--44.

Edmondson, A.C. (2002). The local and variegated nature of learning in organization, Organization Science, Vol.13. (2), 128--146.

Edmondson, A.C. (2011). Strategies for learning from failure, Harvard Business Review, April 2011

Li, Jing Hua. Chang, Xiao Ran. Lin, Li & Ma, Li Ya (2014). Meta-analytic comparison on the influencing factors of knowledge transfer in different cultural contexts. *Journal of Knowledge Management* Vol.18. (2), 278-306.

Madsen, Peter M. & Desai, Vint (2010). Failing to learn? The effects of failure and success on organizational learning in the global orbital launch vehicle industry. *Academy of Management Journal*. Vol. 53. (3), 451-476.

McLaughlin, Stephen. Paton, Robert A. & Macbeth, Douglas (2008). Barrier impact on organizational learning within complex organizations. *Journal of Knowledge Management* Vol.12. (2), 107-123.

Ministry of Internal Affairs and Communications (2006). *White Paper Information and Communication in Japan in Year 2006.* http://www.soumu.go.jp/ johotsusintokei/whitepaper/eng/WP2006/2006-index.html

Ministry of Internal Affairs and Communications (2008). *Press Release (July 31, 2008) (in Japanese) http://www.soumu.go.jp/johotsusintokei/statistics/data/ SB20080731.pdf*

Ministry of Internal Affairs and Communications (2010). *Press Release (February 2, 2010) (in Japanese) http://www.soumu.go.jp/main_content/000052593.pdf*

Ministry of Internal Affairs and Communications (2012). *White Paper Information and Communication in Japan in Year 2012.* http://www.soumu.go.jp/johotsusintokei/ whitepaper/eng/WP2012/2012-index.html

Ministry of Internal Affairs and Communications (2015). *News Release (November 19, 2015) (in Japanese) http://www.meti.go.jp/statistics/tyo/joho/result-2/h27/h27sokunews.pdf*

Nagayoshi, Sanetake & Nakamura, Jun (2015a). Organization learning from failure through knowledge network: Case study on an engineering company in Japan. *Multidisciplinary Social Networks Research*, MISNC2015, 80-93.

Nagayoshi, Sanetake & Nakamura, Jun (2015b). Exploring strategic logic for learning from failure: Case study on a Japanese company. *Proceedings of the 11th International Conference on Knowledge Management*, 149-158.

Nagayoshi, Sanetake & Nakamura, Jun (2015c). Success Factors for Learning of Failure - Case Study on Building Capability by "Reflection and Learning" in Sangikyo Corporation. *Waseda Bulletin of International Management*, No.45.

Number of subscribers by Carriers, Telecommunications Carrier Associations http://www.tca.or.jp/english/database/index.html.

Ranjbarfard, Mina., Aghdasi, Mohammad., López-Sáez, Pedro. & Emilio Navas López Jose. (2014). The barriers of knowledge generation, storage, distribution and application that impede learning in gas and petroleum companies. *Journal of Knowledge Management* Vol.18. (3). 494-522.

Saavedra, Cristina C., Miguel, Rodrigo F. & Lindemann, Udo (2015). A Worker-centered model to understand the factors influencing knowledge application. *Proceedings of the 11th International Conference on Knowledge Management*, 247-256.

Sangikyo Corporation (2016) About Sangikyo Corporation. (http://www.sangikyo.com/article_service/article/about.html) (Retrieved on January 25, 2016)

Zack, Michael H. (1999). Managing Codified Knowledge. Slone Management Review, Vol40. (4), 45-58.