A Study on the SWOT Analysis from Knowledge Point of View the Case of the Sijhih Community University

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Abstract: The purpose of this study is to map SWOT analysis to the problem familiar and knowledge familiar dimensions and meet the challenge of knowing little about the problem and lacking of related knowledge by integrating the Peripheral Vision. In the SWOT analysis from knowledge point of view, organizations can narrow the internal and external gap in order to retain competitive advantage and diminish the danger of the critical challenge. The presented integration framework include monitoring and learning from the periphery and take the Sijhih Community University for real case to demonstrate how an organization can develop strategies under tough situation via the new method. Through learn and collaborate, adjust from feedback, organizations may emergence useful and helpful knowledge.

Key words: Knowledge management, SWOT analysis, peripheral vision, community university

INTRODUCTION

The idea of knowledge is power now is common sense for all business. The development of information technology led to the advent of the knowledge-based economy in the last few years. The traditional economy, by contrast, based on primitive methods and tools has been continuously replaced and diminished. In other words, a nation's economic power now depends largely on how good its people are at absorbing and exploiting knowledge.

In a world where markets, products, technologies, environments and even societies change rapidly, the knowledge that enables such innovation have become important sources of sustainable competitive advantage. There are various approaches used in the analysis of a company's strategic position. One of the most straightforward is the SWOT analysis. SWOT analysis has often been viewed as somewhat outdated in recent years and superseded by resource-based planning and competency-based planning, but in fact these contemporary approaches to strategy formulation are developments of the internal appraisal of SWOT analysis rather that a replacement for it Dyson (2004).

Companies have become increasingly aware of the value of managing their organizational invisible assets. However, Zack (2004) pointed out that the most common misunderstanding is the view that the more a company's products or services have knowledge at their core, the more the organization is by definition, knowledge-based. It has become a popular slogan rather than action in most organizations. Besides, managers were often normally focussed on a number of key issues and targets, such as strategic positioning, operations, competitors, internal processes, human relations, etc. Focus, however, may lead to an underestimation of critical moves taking place at the periphery outside the attention. In such instances, peripheral vision becomes important reference to organizational survival (Day and Schoemaker, 2004).

Knowledge management: Knowledge management was often ranked one of the most important issues for Organization in recent years. There are a number of definitions of knowledge management already presented in the literature. As Bennett and Gabriel (1999) argue, knowledge management is concerned with the capture, storage and dissemination and use of knowledge.

Davenport and Prusak (1998) define knowledge as a fluid mix of framed experience, important values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. Knowledge originates from unique experiences and organizational learning by key constituents and it often remains embedded, not only in documents or repositories but also in organizational routines, processes, practices and norms.

Knowledge is constituted by the ways in which people categorize, code, process and impute meaning to their experiences (Arce and Long, 1992). Many research topics focus on the process or environment that creates or locates knowledge and manages the dissemination and use of knowledge within and between organizations.

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In the 21st century, knowledge has become the most important capital for a company's success. Thus effective management of organizational knowledge has become the ultimate determinants of the businesses competitive advantage in the knowledge economy era. During the transformation into knowledge-oriented organizations, companies may face many cultural problems. For example, people may not like to share their knowledge because they take their knowledge as the source of power. If they told other people what they knew, they might feel that they will loose power of their professional influence. Therefore, when adopting a Knowledge Management (KM) initiative, organization must provide some kinds of mechanisms to facilitate the knowledge management programs, such as providing some incentives for people to share their knowledge or find new employees with more open-mined personality.

Strategy analysis: SWOT is an acronym for strengths, weaknesses, opportunities and threats. SWOT analysis is the in-depth internal simple framework for generating strategic choices from a situation analysis to identify strengths, weaknesses, market opportunities for 4 company and threats to your business (Hill and Westbrook, 1997). One way to use SWOT analysis is to develop strategies that will minimize the affect of weaknesses on your business while maximizing your strengths. Ideally, you will match your strengths against market opportunities that result from your competitors' weaknesses.

Resource-based planning regards the firm as a bundle of resources and suggests that their attributes significantly affect the firm's competitive advantage and by implication, its performance (Barney, 1986; Lee and Pennings, 2001). The resource-based view suggests that start-ups pursue entrepreneurial strategies that focus on the accumulation of intangible resources for survival or growth and contends that the possession of certain key resources with characteristics such as value, barriers to duplication and appropriability (Fahy and Smithee, 1999). A Sustainable Competitive Advantage (SCA) can be obtained if the firm effectively deploys these resources in its product-markets. Therefore, the resource-based view emphasises strategic choice, charging the firm's management with the important tasks of identifying, developing and deploying key resources to maximize returns.

Lado *et al.* (1992) presented a model which integrally linked managerial competencies, strategic focus, input-based, transformation-based and output-based competencies. These competencies may be valuable to the firm and their inter-linkage may generate a sustainable competitive advantage to the firm. And from competency-based perspective, a firm's human resources systems can contribute to sustained competitive advantage through facilitating the development and exploitation of managerial, input-based, transformational and output-based competencies (Lado and Wilson, 1994).

Peripheral vision: Day and Schoemaker (2004) argue that a monitoring of the periphery can help diffuse small problems before they become crisis. The periphery is the part of the world that does not occupy the center of attention. It may be any possible situation such as the anti-globalization protests in Seattle and Rome in 2003, Environment Protection issues or unforeseen emergencies. The company boundaries are blurred, malleable and dynamic and the incumbent players may have become highly vulnerable to attacks from the new periphery. They propose a new framework of monitoring and learning from the periphery. It is grounded in organization learning, which is about the general process of developing new knowledge or collective insights that have the potential to improve the behavior or performance.

First step is Scoping. Expanding the scope just enough to include all the relevant parts of the environment but no further. Once the scope is set, leaning begins with scanning. This scanning can be to exploit within a well-defined domain or explore an unfamiliar one. Then the organization needs to develop appropriate channels for sharing and interpreting information internally as well as with external partners to improve interpretation. Any action should be taken after deep think. Decision makers may not be able to wait for clear and compelling evidence before doing something. Consequently, their degree of commitment may have to range from a cautious, toe-in-the-water approach to an aggressive full-scale investment, depending on the situation. The appropriate strategic could be watch and wait, position and learn, believe and learn etc.

Once the organization acts and starts to obtain feedback, opportunities for learning and adjustment will arise. The interaction between organizational actions, perceptions and reactions will refine the organization's understanding of its environment. Depending on the type of feedback it receives, the organization's strategy may need to be adjusted. This leaning cycle is a matter of continuous improvement activities and leads organization to reinforce its capability to survive in the changing world.

Scholars also critically analyzed and suggested 6 strategic practices for different kinds of groups. Three strategies for developing peripheral vision in minimally-

structured teams can be identified zooming, improvisation and bricolage. And the other three strategies for developing peripheral vision in immersed teams can be devised: Scenarios, wild cards and weak signals (Cunha and Chia, 2005).

SWOT ANALYSIS FROM KNOWLEDGE POINT OF VIEW

We have discussed some related methods for organizations to maintain competitive advantage. Research showed that some of these are not really new and had been present for quite a long time. In this study we want to discuss some of the past ideas in our integration framework under new thinking.

Many researches used creative products or earned profit as a means of indicating the value of knowledge or evaluating the performance of knowledge management process. This often led to a biased image. Knowledge should not only refer to some professional, specialized set of data or ideas. It was something that everybody possessed and often produced as a by-product of daily interactions with customers, suppliers, alliance partners and even competitors. Even the cement-making company could save a lot of expense by exploiting knowledge.

Everyday life is full of solving practical problems and this occupies a prominent place in a person's knowledge. Its validity is often taken for granted until one encounters a problem that cannot be easily solved. Such complex context could be summarized and discussed from problem familiar and knowledge familiar dimension. The first case which is the familiar problem with overflowing knowledge is easy to solve. The second case is we can't solve the problem because of our lack of knowledge. Trying to acquire knowledge in related course should help. As we are full of explorative types of knowledge, change the process from one way of thinking to another. It's the third case and the new paradigm would replace old assumptions, beliefs, values, goals, etc. The last and the most complicated case was we don't know much about the problem and are lack of knowledge about how to solve it.

From knowledge point of view to analyze the business situation, Zack (2004) talk about the gap between what organizations know and need to know focuses attentions internally, just as the strengths and weaknesses components of a SWOT analysis do. The gap between what it knows and what its competitors know focuses attention externally on the opportunities and threats. Company should narrow the internal and external gap in order to retain competitive advantage and diminish the chance of the critical challenge. Managers take SWOT analysis into account in every aspect of organization's operations and treat every activity as a potentially gap-diminishing act.

In this study, we try to map SWOT analysis to the problem familiar and knowledge familiar dimension. From the problem familiar's viewpoint, the organizations often focus on seeking opportunities and put more resources in it. In contrast, only few of them are pay more attention to discovery risks. It results in the contexts of high familiarity with opportunities and the lower familiarity with threats. Besides, the organization also recognizes its advantage, which happens naturally and misunderstands or doesn't want to face its drawback. So the contexts of more knowledge with strengths and the lower knowledge with weaknesses are in evidence. The initial framework of this study appears to be matched perfectly so far.

The next challenge is dealing with the situation of knowing little about the problem and lacking of related knowledge. Company cannot always take advantage of the 6th sense to figure out the difficult situation. Many study issues fall into this area, such as Haeckel (2004) discussed how to sense and action on environment's weak signals and making meaning out of apparent noise. Day and Schoemaker (2004) and Brown (2004) focus on minding and mining the periphery to propose new managerial framework. Though there doesn't have the exact answer to solve this kind of problem, we try to integration peripheral vision from related researches into our framework and the final mapping is illustrated in (Fig. 1).

The first part of the framework is problem solved and organization could solve the problem directly through the use of appropriate knowledge.

The second part of the framework is paradigm shift. In this case, the organization is full of fluent knowledge of opportunities to face the unknown or unfamiliar problem and a transformation must be pushed ahead with to sustain competitive advantage or keep making progress.

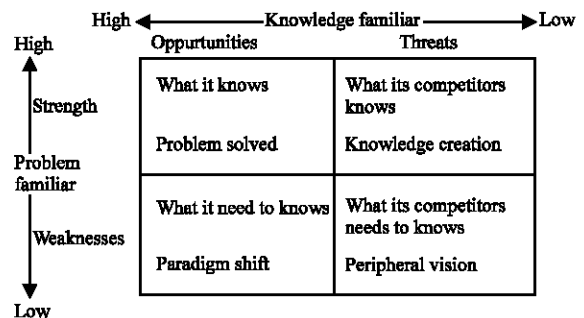| High ◄————Knowledge familiar————► Low		
	Oppurtunities	Threats
Strength	What it knows	What its competitors knows
	Problem solved	Knowledge creation
Weaknesses	What it need to knows	What its competitors needs to knows
	Paradigm shift	Peripheral vision

Fig. 1: The framework of mapping SWOT analysis to the problem familiar and knowledge familiar dimensions

The third part of the framework is knowledge creation. It is important to discovery what your competitors know and if you still haven't possessed it, taking action to learn and absorb.

Finally, the last part of the framework is peripheral vision. This context should be most critical to organization in the changing environment nowadays. It is worthy to note that although a genius leader with the unique sixth sense or great vision may lead the organization to take away from unseen dangers or threat, the peripheral vision provides clear procedures to follow up and should work for most business. It also improves the organizational learning capability to face the music more efficiently.

CASE STUDY

After presenting the integration framework, we take Sijhih Community University for real case to demonstrate how an organization can develop strategies under tough situation via the new method.

Case background: SCC Taiwan, former Sijhih Community University was established in 2002 and was the first online community university in Taiwan. The community university, strongly advocated by the private-sector education reform movement, aims to liberalize the dissemination of knowledge and to promote the development of the civil society in Taiwan. Their presence has encouraged a new way of thinking about community. By providing the opportunities of being educated and making the knowledge spread, community universities offer grown-ups channels to better understand themselves, other people and the modern society and accomplish life-long adult education.

The curriculum design is making the knowledge spread through community participation. Local groups and academic programs are also parts of integration and innovation of teaching resources. Over one thousand Sijhih citizens ever participated in the provided courses. However, because of the natural disasters continue to strike and cause physical damage and economic injury in the Sijhih city. Including personal property damaged, risk to life and destruction to transportation facilities limited the growth of students and lead to financial loss. At the moment of facing growing pressure to survive, the management team of Sijhih Community University realized the urgent situation calling for prompt action.

Strategy seeking procedures: Two key concepts were a well known solution to this question: Cost-saving and market expansion. They needed a clear strategic position and used SWOT analysis from knowledge point of view as a methodology for seeking solution. SWOT analysis involves 3 key steps:

- First, understand the organization's strengths and weaknesses.
- Second, study the organisation's business environment and discovery the related opportunities and threats.
- Finally, by looking at which strengths might be used to take advantage of specific opportunities and which weaknesses may make us vulnerable faced with certain threats, we can better plan our strategic options.

To help the above-mentioned steps, a form was developed to facilitate the SWOT analysis. The first part was titled SWOT analysis of the Sijhih Community University. It was based on the 2 rows and 2 columns grid with one term placed in each quadrant with strengths and weaknesses in the first row and opportunities and threats in the second. The second part of the form was titled ACTION PLAN. It contained a series of questions to guide the management team to think about the organization's current situation and future position. One question was developed for each part of the SWOT analysis. The questions were stated as follows:
What procedures will you take to...

- Capitalize on the Sijhih Community University's strengths?
- Improve in the Sijhih Community University's weakness?
- Take full advantage of opportunities?
- Diminish the impact of threats?

To test the effectiveness of the SWOT analysis in this setting it was implemented with four core members of the management team. They were asked to complete the analysis in a week and then send their copies to the other three management team member. After reviewing other members' viewpoint of the present situation and future direction, a meeting was hold three days later to discuss the next step for the survival. After a brainstorming session, some concrete consensus reached and a learning process was decided to taken at the end of the meeting to see if new information technology were any help to E-Learning which means that the students can do learning activities through Internet from any location, in any time. By utilizing one of the most important trends of learning solutions, they hoped to expand their business in new
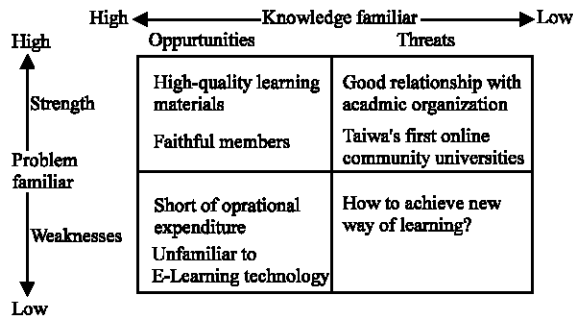
Fig. 2: The Sijhih Community University's SWOT analysis from knowledge point of view

market and another advantage for this technology was to reuse the learning content against digitalized the learning materials by computer software and hardware. The final agreement can express in SWOT analysis format from knowledge point of view and be illustrated in Fig. 2.

Though the conclusion was to transform the traditional way of classroom teaching into online E-Learning service, they used toe-in-the-water approach to avoid large investment loss because of unfamiliar to E-Learning technology and short of operational expenditure. There are no simple formulate to answer this critical questions and it require knowledge, experience and a strategic perspective. So a learning process, of course, was based on peripheral vision formed:

- The first step was scoping and they made choice of the E-Learning technology and platform as the main objective.
- Then they paid high attention to collecting related software, hardware, policy and firms in scanning step and searched for any help or cooperation opportunities. Scanning the periphery which they don't understand and weren't familiar with wasn't easy and was tide to the organization's capability to systematically discovery important matters out of chaos. It cost the Sijhih Community University lots of time and expense to conform to the all requirements and complete this stage. Besides, for next step's preparation, they try as much as they can do to invite the E-Learning solution providers to present and exchange of opinions.
- After the explanation, clarification and interpretation, two ways were decided to taken simultaneously in the end of 2003. One was using an existing Open Source solution which was free and quick to establish the prototype platform to draw up the feasibility assessment plan. The other was to cooperate with several skilled students for a long-term partnership to develop the real systems.

The prototyping system they selected was Open LMS (Learning Management System) and online in the middle project funded by the The Norwegian Agency for flexible of 2004 to collect feedback from students. It started as a Learning in Higher Education (SOFF) and had the most basic features, including lecture uploading and distributing, group collaboration for students with separate forums and file archives, assignments administration and web resources organizing. The OpenLMS platform, developed in Active Server Pages functioned in Microsoft internet Information Server and needed Microsoft SQL Server and imagemagic to run on the same server.

In the same time, the E-Learning environment requirement was defined and refined to meet what they want. They also allied with several students good at Java to develop the real system. The learning website was renewing at the beginning of 2005 and was developed in MVC pattern. MVC (Model-View-Controller) is a powerful architectural pattern used in software design and its paradigm is a way of mapping an application into three parts: The model, the view and the controller. Though MVC comes in different types, control flow generally works as follows: A controller handles the input event from the user interface and accesses the model, possibly updating it in a way appropriate to the user's action. Then a view uses the model to generate an appropriate user interface feedback.

The MVC has been pursued for a clear design which separates different responsibilities within an interactive application (Leff and Rayfield, 2001). By understanding the scenario flows, the E-Learning website was partitioned in a way that improves performance and maintainability. Besides, the new digitalized learning content actually attracted some additional students who were curious about the novel knowledge gathering way. Though the SCC Taiwan didn't start to balance from loss to profit, but they have faith that the situation will turn much better gradually.

CONCLUSION

To meet the challenges that lie ahead in this knowledge-based economy, the organization must work hard to provide a suitable environment for knowledge discovery and learning. In this study we have written about the usefulness of the SWOT analysis from knowledge point of view in the changing environment. We discussed various related topics and presented the integration framework. From a practical standpoint it proved to be a useful tool for helping the Sijhih Community University in organization transformation. Several trends were observed from analyzing the

completed forms and they promoted online services to realize the ideal of lifelong learning by reinforcing the organizational learning capability.

We also provided a detailed insight into the important of the peripheral vision and illuminated its contributions to retain competitive advantage. Finally, how to form a positive culture for knowledge management, are the most urgent and key issues for company in near future.

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