Countermeasures to break through the bottlenecks of Chinese SMEs

——knowledge management perspective

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Abstract: From the 1990s, economist started to come up with the concept of “knowledge management”. Knowledge management has gone through more than 20 years. Thanks to the development of information technology and globalization, knowledge management theory has acquired unprecedented amount of attention and a deep research from United States to Europe and then to Japan. Therefore, the system of knowledge management theory has gone through continuous development and improvement. At the same time, with the practical application of knowledge management on the effectiveness of the government, enterprises and individuals are becoming increasingly apparent. In particular, the application of knowledge management in the enterprise is becoming increasingly important in today’s era of knowledge economy. However, the development and application of knowledge management in China is quite late. This theory came to China at about 2005, treated with disdain in its early years. On the one hand, since China’s accession to the WTO, SMEs has achieved a booming developments. On the other hand, with the deepening of the global financial crisis, the global economy is in downturn. It is hardly hitting the China’s export sector. The development of SMEs in China is facing many bottlenecks. At this very moment, SMEs begins to think about a new development model to replace the old export-processing-oriented one. When they start to transform their corporations, they focus on management, meanwhile, the development of knowledge management is quite developed in the western world. There are many gleaming success in the management perspective in these famous multinational corporations. This thesis introduces the benefits of knowledge management to the world by using a typical example of one famous multinational corporation. Then, it analyzes the SMEs’ major bottlenecks, starting from the knowledge management perspective, using the instance method, comparative analysis, to sum up the suggestions for Chinese SMEs to break through the major bottlenecks in their developments. This discourse aims to inspire the development of SMEs in China in the context of knowledge management.

Introduction

1. A history of the development of knowledge management and its application on current global situation (case study)

1.1 History of the development of knowledge management

During the evolution of human civilization, knowledge management has existed for a long time. In
Agricultural economy era, knowledge management is a literature-based management. In the Industrial economy era, knowledge management is mainly reflected in the management of technology. With the advent of the information economy in 1990s, knowledge management is reflected in the information resources maintenance. Today, the world have developed into the era of knowledge economy, the object of knowledge management which is mainly based on human and organization and technology is the main body of knowledge resources. Since 1970s, the rapid development of globalizing world economy has undergone significant changes. During this period, knowledge became the fifth important factor of production, following land, labor, capital and natural resources. In 1996, the United Nations Economic Cooperation and Development (OECD), published a report entitled "knowledge-based economy", which gave rise to domestic and international study on the impact of knowledge on the booming economy. At the same time, knowledge management is becoming an independent discipline. The development of knowledge management theory and practice have experienced a long and tortuous course.

Various stages of development features are listed in the following table 1:

<table>
<thead>
<tr>
<th>TIME</th>
<th>The main representative or the main driving force</th>
<th>The main contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970s</td>
<td>Peter Drucker, Paul Strassman, Peter Senge</td>
<td>Promoting information and explicit knowledge, highlighting &quot;learning organization&quot;</td>
</tr>
<tr>
<td>1978</td>
<td>Doug Engelbart, Bob Azarbayji, Don McChord</td>
<td>Hypertext/group ware, The first knowledge management system</td>
</tr>
<tr>
<td>1980s</td>
<td>Artificial intelligence and expert system technology</td>
<td>Knowledge acquisition, knowledge engineering, knowledge-based system</td>
</tr>
<tr>
<td>1989</td>
<td>Senge, Suhayya</td>
<td>(The Fifth Discipline)</td>
</tr>
<tr>
<td>1991</td>
<td>Tom Stewart</td>
<td>(Tsugaya)</td>
</tr>
<tr>
<td>1995</td>
<td>Tadashi Homma, Hironaka Takuchi</td>
<td>(The knowledge creation company, how Japanese companies create innovative dynamic mechanism)</td>
</tr>
</tbody>
</table>

1.2 The application of knowledge management in current global situation — Xerox

Knowledge management theory and the system has improved steadily and stimulated the demand by the industry. Knowledge management has become an ideal choice to replace the failure of total quality management and business process reengineering activities. Some of the world's leading companies, such as: Ernst & Young, Arthur Andersen, Xerox, rapidly increased their knowledge management business. For example, since 1950s and 1960s, Xerox Corporation was the world's famous producers of office supplies. But with the rapid rise of the Japanese copier industry in 1980s, Xerox's market share is gradually shrinking, and its market position was threatened by some famous Japanese companies. In order to improve their competitiveness and to consolidate their exalted industry status, as early as the 1990s, then knowledge management was just emerging in the industry. Xerox had no hesitation to invest huge money to establish a more comprehensive knowledge management system, injecting some "freshblood" into the enterprise development and competitiveness. To strengthen its management, Xerox improved their knowledge management system in three main areas. First, it paid close attention to the development trend of knowledge management, and actively involved in research investment and sent employees to in-depth practical learning to explore knowledge management. For example: Xerox arranged its excellent workers to interview these 60 knowledge management experts in the United States, trying to understand the awareness level of their knowledge management, and what they consider is the most ten important knowledge management areas. The
study group consisted of 100 knowledge managers from United States, Europe and Japan who actively participated in the activities of Ernst & Young (Ernst & Young's) Advisory organization “knowledge management”. It also built Business School in University of California at Berkeley's Haas (Hass) to teach knowledge management and so on.

Secondly, Xerox has set up a company's internal network and employed many knowledge managers, for example: "knowledge horizon". Through the network in the company, employees can exchange experience, share literature ideas and visit the information of the latest products, technology, service information, a lot of knowledge management practices and case study. Meanwhile, these knowledge managers can refine these experiences, information, cases into knowledge and bring benefits to the company.

Last but not least, Xerox attaches great importance to the development and sharing of intellectual resources within the company. Managing Director and Executive Chairman of this Company, Paul A. Allair said: "First, Knowledge management stressed the importance of people, emphasizing the work practices and culture of the people, and then technical issues". At the same time, Xerox has established a sound internal knowledge base in order to achieve this sharing. Especially since 2000, Xerox conducted a creative large-scale business reorganization, successfully transforming the company’s main product from a black and white analog copiers into a color and digital document solutions supplier. So far, the Xerox Corporation is unparalleled in the management (in particular, knowledge management) and document production.

2. The main bottleneck in the development of SMEs in China and breakthrough countermeasures

2.1 The main bottlenecks in the development of SMEs and successful examples of breakthroughs of bottleneck

It is in 1998 that the concept and the idea of knowledge management came into China. After 2000, some companies began to introduce knowledge management and hoped to strengthen the competitiveness of enterprises by these theories. Especially since the 2008 financial crisis, China's exports plummeted and RMB depreciated continuously, resulting in a direct impact on the survival of SMEs. With the emergent closures of a large number of the Wenzhou and Guangdong SMEs, the development of SMEs are facing bottlenecks. What are the bottlenecks encountered by SMEs in China today? And how to use knowledge management to overcome these bottlenecks?

At present, as the business has a better understanding of the importance of knowledge, many SMEs began to explore the internal and external corporate knowledge management and application. In the Guangdong province, China, for example, these SMEs are the main sectors to provide employment and increase government revenue. In this survey, M Ceramics Co.Ltd. of Foshan explored the knowledge management’s significant impact by systematic analysis.

M Ceramics Co., Ltd. was established in 1995. It was first established to focus on the production of various types of ceramic tile. At the beginning two or three years, the company developed at an alarming rate, at the result of the rapid expansion of company size. As the company became bigger and stronger, the company began to be immersed in the various interior issues. M is a family-owned business, the boss needed to solve almost all of issues in the company, no board of directors and decision-making group. On the one hand, this lead to the boss’s large working pressure; on the other hand, the boss will make inevitably policy mistakes sometimes, resulting in significant losses.
Meanwhile, the company's financial, procurement is performed by the relatives of the boss, which directly makes the company accounts unclear, no details of income and expenditure account. Besides, the company's earning and expenditure all depends on the year-end balances. The company staff management issues are more serious, due to the absence of a perfect promotion mechanism, the appointment of important positions within the company depends on the boss’s preferences, which led to the dissatisfaction of many hard working employees. After working for many years but not getting promoted, these staff often choose to leave, which causes the company to lose a large number of sophisticated, hard work and excellent staff.

Until 2001, due to internal problems of the company not resolved, coupled with increasing competitive pressures in China at a result of accession to the WTO, M was facing the risk of failure.

The company boss was determined to reform, so he sold out part of his shares and set up a board of directors, then hired a professional career managers to reform all aspects of the company.

Reform process in the following table 2:

<table>
<thead>
<tr>
<th>Problem</th>
<th>Measure</th>
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<tr>
<td>Chaotic production process, lack of innovation</td>
<td>Establishing of production data for household and specialized technology development center, employing provisional D&amp;O personnel</td>
</tr>
<tr>
<td>Chaotic human resource management</td>
<td>To adopt the Gallup’s famous “human resource 12 activities”, talent management approach</td>
</tr>
<tr>
<td>Chaotic company financial management</td>
<td>Hiring a professional finance staff, cost-benefit assessment for the company’s new policy</td>
</tr>
<tr>
<td>The management of low-level employees</td>
<td>Training, establishing a knowledge of community and expert lectures</td>
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</table>

With a series of new policy guidance, the development of the company ushered in the "second spring".

From 2005, M annually produced 22.5 million square meters of various types of wall and floor tiles, with annual sales of more than 1 billion yuan. M had brought products of more than 100 varieties and more than 300 colors to the domestic market. This made the "M" survive in the competitive marketplace. Relying on its strong soft power, in recent years, M has made significant achievements, not only in the constantly expanding overall scale of operation, but also in the comprehensive evaluation of the Chinese famous brand products in 2006. In addition, she won the "Guangdong Province Famous Brand" "Guangdong excellent trademark" "National Inspection-free Product" and a series of heavyweight honors.

2.2 Countermeasures to breakthrough the main bottlenecks in the development of SMEs (knowledge management perspective)

From the above example, it is clear that the successful use of the knowledge management in the Company M can be generalized to other similar SMEs. There are roughly three aspects of reforms during the development of these SMEs: financial management reform, personnel management reform, sales management reform. All of these managements are related with various knowledge, so it can be analysed from the knowledge management perspective.

Financial management of Domestic SMEs is quite confusing and the management is very irregular, although there are generally independent financial staff. The financial management of the enterprise is a business lifeline and the lifeblood. If it is not managed properly, it will directly affect the survival of enterprises.
For example: “Wen Paopao” which happened Wenzhou last year was the result of capital chain rupture and financial mismanagement. At this stage, there are many problems existing in SMEs’ financial management, such as the lack of sound scientific management mode, the shortage of a rigorous system of financial management, internal financial management information technology is backward, weak inventory control, serious sluggish funds. In the era of knowledge economy, financial management model should be updated from the previous local, decentralized, chaotic management to the remote processing and centralized management. In consideration of big fluidity phenomenon of SMEs’ financial personnel, SMEs should establish perfect internal financial information system, to guarantee the heritage and continuity of financial management, so that individual financial staff’s turnover will not cause the rupture of the corporate financial information systems. At the same time, this new financial system should have the oversight functions and enable financial managers real-time query to the enterprise funds and financial condition, supervise the financial transactions of customers and suppliers, timely warn and recommend adjustments to the development plans of enterprises.

Compared with Financial management, staff management of the enterprise is quite standard. Under China’s specific national conditions, China’s SMEs are mostly based on export processing, this resulting in most employees of the factory are assembly line workers. And employees’ general mobility of SMEs is relatively high, which is quite common that if a worker is mature in all respects, he will choose to job-hop. This is partly due to poor wages of SMEs and a variety of imperfect benefits insurance system, in other way, SME employees are not exposed in high technology, broad promotion space.

In knowledge management theory, there are tacit knowledge and explicit knowledge. In general, when a staff member enter a company, within a very short time, he can quickly grasp the company's explicit knowledge, but it needs a long time for the staff to master the tacit knowledge. Modern SMEs tends to pay more attention to the management of explicit knowledge, but they often ignore the management of tacit knowledge. For example, these tacit knowledge are always going along with skilled workers who have a high technology and rich experience, and these SMEs will lose these potential advantage if these mature workers leave. Tacit knowledge often constitutes the company's soft power. On the one hand, the protection of these tacit knowledge need to improve in all aspects of the systems, such as the establishment of a reasonable salary, promotion, welfare and pension system, trying to retain talent; On the other hand, these SMEs should establish a knowledge base which can help the company to list the company's jobs and corresponding skills. These skills need to be summarized by skillful workers, and are based on their experience. In the Knowledge Base, it should be feasible to take into account the staff's recommendations, in case a worker finds a way to solve a problem or a better method to deal with some issues. Staff can submit this proposal to the knowledge base, to accept judges of the panel which is consisted of a number of mature workers. After passing the review, the panel will store the recommendations in the knowledge base for people who are not familiar with these new methods. With Attaching authors to new knowledge and skills to recommend the staff and provide appropriate incentives to staff to encourage his or her innovation. "1 +1" or "1 +group" can also be formed within the company, namely a mature staff led by one or more new members to carry out practical guidance and learning. Especially the skilled workers who intend to leave, requiring them to personally teach the growing staff these skills and experience, with some reward attached.

In sales management, it is necessary to change the traditional marketing methods. The traditional marketing approach is simply the trading relationship between enterprises and customers, to change this single relationship into a partner relation, to fully explore the customers effective resources, and
promote the common development of businesses and their customers. Today, SMEs’ sales staff have a quite high mobility, but the sales staff have the most important contact with customers, a turnover of sales staff tends to take away a lot of enterprise customers, while new recruits is unfamiliar with these customers, it often need a long time for these new staff to build a good relationship with these customers. This is not only a waste of time, but customers also do not want these behaviors to occur.

The old customers generally prefers to continue these cooperation in accordance with previously agreed contracts which requires company to establish a comprehensive sales network within the enterprise. All sales personnel need to record their understanding of customer information and each transaction is credited to the interior network. Encouraging sales staff to record all customer-related information, such as customer preferences, temper, habits, family members and the customer's business information, particularly these companies which often do business with customer so that the enterprise can appeal customers around customers into their own customers, to expand their customer base. It is also very necessary to set up an emergency team (generally the elite level of sales personnel), once there are any contradiction between sales staff and customers in business dealings, the company can send its emergency team to deal with the problem in a timely manner. At the same time, after the event, the sales personnel of the parties related to the incident should make full notes of the event’s background, reasons, process and complete solution, uploaded to the company's sales network, to educate other sales staff as a typical case. Such a sound sales network can not only promote the sales staff to accumulate their knowledge, but also will not cause a great impact on the company's sales network after the number of sales staff leave. Based on the basis of existing resources, the new sales staff can quickly grasp all the information of the customer and take over the business with customers successively.

In addition, there are many other bottlenecks during the development of SMEs, for example, while the RMB continues to appreciate, this almost squeezed the profits of SMEs which focus on production and export processing as the main profit model; especially after Bank SME credit crunch, it is becoming more and more difficult to borrow money from banks, leading to a series of SMEs’ financial problems. what’s more, small business owners are often lack of the legal concept and fail to obey laws. Management and rent-seeking problem is serious. The absence of their own brands, backward R & D team, imperfect service system and so on.

3. Summary

The development of knowledge management is relatively late in China. SMEs will inevitably encounter some difficulties in the process of implementing knowledge management, especially in the actual operation. It is always hard to apply knowledge into practice. For instance: although knowledge management database theory is feasible, it is often difficult to mobilize the enthusiasm of the staff in actual practice. These companies often spare a lot of effort into building a knowledge base, but employees always ignore this, then these companies should reflect that if the theory and specific business is connected well. It is very necessary to improve these concrete measures in response to the actual situation of the company. It should be noted that the success of knowledge management is not a bunch of “database or knowledge base”, but the management of “human”. As most of management mechanism of the SMEs are competitive, which makes the staff who have rich experiences and sophisticated technology often refuse to share their knowledge so that they can retain their competitive advantage. This requires companies to improve the competitive environment under the competition-oriented mechanism, by setting a series of incentives which can make these mature
workers to share their knowledge and experience, with their self-interest not compromised. The application of knowledge management in SMEs cannot be done in one night, while it is significantly an arduous and lengthy process. Today, knowledge has become a sign of a soft power competition for companies. The driving force from the use of knowledge management is also becoming increasingly apparent to the companies, which requires SMEs to emphasis on knowledge management during their transformation. They should not focus on instant success, but on the greatest praise to be made gradually through the process of practical application. Meanwhile, they should constantly improve and perfect these theories according to the company's own situation.

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