Knowledge management in enhancing competitiveness of small and medium enterprises

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Abstract
This paper focuses on issues related to knowledge management, the situation in Vietnam in general and in the South East Vietnam in particular, in order to improve the competitive advantage of enterprises, especially small and medium enterprises which are often weak and lacking in professional knowledge management.

Keywords: Knowledge management, competitive capacity, competitive advantage

1. Introduction
1.1 Principles of knowledge management
In a business environment with ever-changing technology and management practices, managers need to constantly learn new tools, adopt new behaviors and realize new tasks, roles, and functions. This is necessary even when no significant changes occur in the organization's structure and value system. Administrators and businesses are always faced with the fact that the amount of new information and knowledge created by people and machines is increasingly massive and at risk of becoming obsolete. In an increasingly large business environment, they cannot easily be updated and become obsolete quickly. That fact has increased the role of knowledge, which is updated and useful information for the objects used in all business processes. Knowledge is a unique resource of an enterprise, and unlike other resources, its value is increased during use \cite{3}.

More and more businesses are implementing knowledge management and those tasks have brought about great benefits for businesses. Knowledge management is a sensitive field, requiring managers with special skills and qualities. Managers must master the issues related to effective use of knowledge in an organization, such as \cite{2}:

- New challenges related to knowledge management;
- Identify and search for knowledge resources;
- Archiving, disseminating and protecting knowledge;
- Measure and assess the value of knowledge resources (resources);
- Assess and measure the effectiveness of knowledge management in enterprises.

The knowledge management skills of the information society era today become crucial for every business that wants to survive and succeed in competition. Therefore, administrators and individuals in the business also need to update knowledge and knowledge management skills to be able to maintain their existence in the market. Here are some landmark trends taking place in the knowledge economy and also in the knowledge management today.
Table 1: Trends today and tomorrow in knowledge management

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yesterday and today</th>
<th>Today and tomorrow</th>
</tr>
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<tbody>
<tr>
<td>Ability to store knowledge of databases</td>
<td>Databases and computer networks are less likely to adapt to storing experience (knowledge).</td>
<td>Database and computer networks are highly adaptable to storing experience (knowledge).</td>
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<tr>
<td>Knowledge form</td>
<td>Operational knowledge resides in the brains of individuals</td>
<td>Operational knowledge is converted into storage format in the database</td>
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<td>Time to transfer knowledge</td>
<td>The time for form knowledge transfer is shortened</td>
<td>Time for form knowledge transfer takes place immediately through communication networks</td>
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<tr>
<td>Basis of business strategies</td>
<td>Business strategy is built on reports of business environment</td>
<td>Business strategies are based on knowledge from the environment, understanding your own resources, and most importantly, the necessary skills.</td>
</tr>
<tr>
<td>The core element of the economy</td>
<td>The economy is based on products and services</td>
<td>The economy is based on intangible factors such as knowledge and information</td>
</tr>
<tr>
<td>The cause of the existence of an enterprise</td>
<td>The existence of a business depends on the processes taking place in the market and a defined strategy</td>
<td>The existence of a business depends on its ability to learn</td>
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<td>The position of experts, intellectuals</td>
<td>Administrators are more important than experts</td>
<td>Specialists are the sources of rare knowledge, with an equivalent position compared to the administrators</td>
</tr>
<tr>
<td>Relations</td>
<td>Build trust and loyal attitudes based on personal relationships</td>
<td>Building trust and loyalty are not just based on personal relationships</td>
</tr>
<tr>
<td>Knowledge sharing</td>
<td>Information, knowledge and experience of each individual is the basis of their power and position inside and outside the organization</td>
<td>Transferring your knowledge to people through databases and networks is appreciated and rewarded</td>
</tr>
<tr>
<td>Education</td>
<td>Training is only for a number of subjects in the business and is conducted by professionals</td>
<td>Everyone is involved in training. Many forms of training and many participants participate in organizing the implementation of the training process</td>
</tr>
<tr>
<td>The nature of learning</td>
<td>Learning is a process that takes place on an individual level. Towards personal experience</td>
<td>Learning is a collective process through which employees (students) share a language and a value system, thereby becoming more engaged with the organization. Towards collective experience</td>
</tr>
<tr>
<td>The purpose of learning</td>
<td>Learning is the process of adapting to the changes that take place</td>
<td>Simultaneous learning is also the creation of new knowledge</td>
</tr>
<tr>
<td>Administration system</td>
<td>System and information administrators</td>
<td>System and knowledge administrators</td>
</tr>
<tr>
<td>Competence and knowledge</td>
<td>Quality (capacity) is equated with knowledge</td>
<td>Qualities (competencies) include knowledge and skills</td>
</tr>
<tr>
<td>Keep abreast of developments</td>
<td>Following developments in practice is not a top concern</td>
<td>It is necessary to closely follow developments in technology, market and strategy practices</td>
</tr>
</tbody>
</table>

Source: [2, p. 124-125]

To go into the nature of knowledge, we first need to understand some of the concepts related to it, namely [1]: data, information, creativity, decisions and actions (based on the intellectual capital that an administrator currently owns and the manager’s creativity).

- Data - a collection of (quantitative) or / and discrete (non-quantitative) descriptive descriptive sketches of processes, events and developments related to the sequence of activities impact of the business or the business environment outside the business. Data has primary and secondary origins, internal (internal) and external (peripheral) of the enterprise. For example: Vietnam is a country with a population of 90 million people (data), Vietnam is an economy based on agricultural production (qualitative sketch).

- Information - is a collection of data that is integrated, organized and placed in specific contexts to provide administrators with the knowledge in the form of relationships, interaction and interactions between business entities. For example: Vietnam with 90 million people ranks 3rd in ASEAN in terms of population after Indonesia and the Philippines.

- Knowledge - information combined with the experience and judgment (subjective) of managers to make valuable insights such as business or business assumptions in the form of different patterns and rules. For example: The current state of Vietnam's economy needs to invest heavily in research and development to speed up the process of industrialization and modernization in order to escape the middle-income trap. Knowledge is the basis for forming the skills, competencies and qualities of the administrator needed to identify and solve problems, handle situations, make right decisions and take action deliberately and carefully.

- Innovation - new skills, competencies and qualities built on the converged knowledge will be the basis for managers to innovate (think) and be creative in their work (unique decisions and actions), such as offering new ideas, new initiatives, new solutions, new proposals, new directions.

- Decisions and actions - are certain actions of the administrator based on the knowledge that he converges and the knowledge of other objects in the planning (plan, expected decision) and in the implementation of plans (specific actions). Decision is the basis of action. For example, based on an analysis of the current state of the Vietnamese economy, the government decided to continue to anchor the Vietnamese currency into the US dollar to stabilize the macro-economy and create...
conditions for medium and medium-sized enterprises. The State Bank of Vietnam has continued to sell US dollars to help stabilize the exchange rate against unpredictable trends of the domestic exchange market as well as the international market (action).

The following is a picture illustrating the relationships between the above concepts and the position of knowledge in those relationships.

![Knowledge Management Diagram](Image)

Source: [1, p. 30]

**Fig 1: Knowledge in relation to other concepts**

Knowledge and knowledge are two concepts with different nuances but often used interchangeably. For knowledge, its objectivity and representativeness are higher, while knowledge is more subjective, often represented by a certain school in administration, economics, commerce, or is associated with and owned by an individual, a collective, a business, a corporation or even an economy of a particular country [1].

Knowledge is a concept that is hard to completely define. Depending on the stage of the economy, the role and function of knowledge can vary, so the definition of knowledge is a time-dependent function. The following is the definition of knowledge of the author based on some concepts of knowledge from the perspective of the latest conceptions of the economy. Knowledge is a crystallization of the knowledge (objective factors), experiences and personal values (subjective factors), with the help of information technology from which we there may be appropriate decisions and actions that bring new added value to the business and to stakeholders [1].

From the definition of knowledge summarized above, we can see that the role of knowledge management is extremely important in the enterprise. It helps businesses achieve the most optimal results. The following is the definition of knowledge management of the author summarized from many different definitions. In summary, in the authors’ opinion, knowledge management is the collection of all activities (processes, processes, procedures, mechanisms, systems and practices). It is necessary for knowledge to be able to promote effectively and optimally bring about appropriate values that are expected for businesses and related subjects [1].

**2. Knowledge management and competitive advantage of SMEs**

In today's competitive market conditions, for businesses, the meaning and role of physical resources diminishes, making way for non-physical resources. This trend has had irreversible effects, even for small and medium enterprises. Because in the knowledge economy today there is no simple proportional relationship between the size of the business, global expansion and the size of the resources it owns. Non-physical resources are often difficult to measure, flexible, dynamic and constantly regenerating. These resources will increase in value, as opposed to other physical resources that often wear out over time, if businesses use them properly. According to the theoretical view of resource-based enterprises (enterprises), enterprises are the units that create knowledge. It is the knowledge and the ability to continually create and apply creatively that are the most important sources of competitive advantage in today's economy, when the knowledge industry contributes with increasingly to the growth of GDP and the growth of transnational corporations. Knowledge is an asset that has the potential to create unprecedented added value for businesses. The knowledge-based approach to building competitive advantage of enterprises is the crystallization of the concept of learning organization, the capacity to absorb and internalize knowledge from outside, the capacity to apply new knowledge. That is the knowledge in the perspective of strategic business planning of the business. Small and medium-sized enterprises, due to their limited resources, are always in shortage of financial resources necessary to develop and expand business activities. Not only that the next serious limitations of small and medium enterprises are [1];

- Shortage of human resources with appropriate professional qualifications;
- Lack of modern machinery and equipment;
- Lack of complete logistics infrastructure and information technology;
- Lack of market knowledge, modern management methods and techniques

Because of the above-mentioned limitations, specific to small and medium-sized enterprises, it is necessary to have an appropriate knowledge management method so that they can reach their full potential to enhance their competitiveness in the best way. With other types of businesses in the information society and knowledge economy. For most small and medium-sized businesses, the information, and from which knowledge is formed, about the business environment is based on direct observations of administrators, adding references, monographs, comments and reports of different levels from different departments. Businesses with slightly larger scale often participate in fairs, exhibitions and seminars at home and abroad to have the opportunity to meet face-to-face to gain timely, accurate and objective information. than. Analyzing the business environment, both primary and secondary, provides very important inputs in diagnosing and finding solutions to current and future strategic issues. However, small and medium-sized businesses rarely use the publicized works of consumer organizations, scientific research agencies, reports of research and supply units, professional information about
the market, although the information contained in these published reports and works is the most reliable and most reliable source of information. Information technology is the most effective tool, whereby small and medium enterprises can narrow the information gap compared to other entities with greater resources and potential. Businesses often compare themselves with competitors in terms of (financial) business results, output products and services. Enterprises, especially small and medium-sized enterprises, due to obstacles in accessing adequate, reliable and objective information, rarely compare governance, objectives and methods, work, the efficiency of the operating processes. Thanks to the development of information technology, the ubiquitous presence and the increasing efficiency of information processing tools, small and medium enterprises should enhance the scope of information technology application to We can analyze and compare ourselves more comprehensively with other competitors so that we can make suitable strategic proposals for our own development and competitiveness. In order to capture the necessary market information, businesses often carry out primary research related to sales, followed by an analysis of orders sent by customers, market share analysis, analysis, competitive environment, marketing environment analysis. Researching the effectiveness of product distribution and trade promotion is rarely done by small and medium enterprises. Small and medium-sized businesses can cooperate with each other, to share resources, complement each other within the framework of joint venture and cooperation networks to be able to perform the necessary operations that contribute to the improvement. To improve the performance of ourselves, our partners and the whole joint venture.

The results achieved when applying knowledge management in business operations are: improving competitiveness, innovation and innovation, the efficiency of the operation process [1].

One of the results of the application of knowledge management in corporate governance, especially for small and medium enterprises, is the consolidation and enhancement of competitiveness that is understood from the perspective of providing, market superior value, compared to other competitors, for customers, for the business itself and for the relevant audience. For small and medium-sized enterprises, the outputs that are often identified and decided on their competitive advantages and competitiveness are:

- Quality of products and services,
- Diversity of products and services,
- The cost of products and services.

In addition to the aforementioned outputs, factors related to the processes of operation, production and service provision are carried out by the enterprise alone or in cooperation with partners. These factors play a critical role because without them it is impossible to get the desired quality, variety and cost of products. Applying knowledge management in those processes will bring the desired effects or more.

For slightly larger businesses (medium-sized businesses) we can identify an equally significant output competitive element, which is:

- Timeliness in order fulfilment

This competitive output factor is to help businesses keep their reputation and reliability and make long-term and sustainable relationships with customers. The above-mentioned process elements will also play a prerequisite to ensure this extremely important output competitive factor, especially for relatively large-scale businesses that want to do long-term and continual business expanding and deploying customer relationships.

Small and medium-sized enterprises, due to limited resources, often lack or not able to fully converge their competitiveness in strategic areas, such as [1]:

- Research and development,
- Organizing distribution networks

The reality shows that the larger the businesses, the competitive factors they can build themselves such as: product quality, image, management team, relationship with customers, have become the foundations for development. However, shortcomings in areas such as research and development, organization of marketing activities or market search are evidence that small and medium enterprises lack the ability to position themself in a business environment. These are the capabilities of seeking knowledge (in terms of market demand), creating new knowledge and effectively applying them. Investing in knowledge management will help small and medium enterprises overcome these weaknesses. In the short term, small and medium-sized businesses must focus on market research to find niche markets that match their current size and potential. On the contrary, in the long term, small and medium-sized enterprises must step by step within their capabilities and in many ways, invest in research and development to constantly innovate, perfect themselves and continuously affirm. Identify the uniqueness of the outstanding value added to the market for customers. These are the key bases for small and medium enterprises to build a sustainable competitive position and competitive advantage and expand their scale in the future.

3. Advantages and difficulties in knowledge management in SMEs

In Vietnam, the concepts of knowledge capital, knowledge management, approaches and application of knowledge into the reality of the economy and businesses are actually quite new and not fully realized. The concept of knowledge management has been around for a long time, but to organize it into an applied science and raise it to a new level still has certain limitations, especially cognitively. Looking at the common ground, knowledge management in Vietnam is very little known. The concept of knowledge management is quite new, even vague and has not been widely disseminated, not many businesses pay attention and invest in research and its role has not been properly and fully realized from the authorities to the authorities.

In general, knowledge management in Vietnam is not yet a vital factor, not a focal point in the development strategy of enterprises. The application of knowledge management in enterprises is still the first steps, not being aware, applying fully, synchronously and systematically. The application of technology to knowledge management has not been considered a long-term strategic issue and in reality, there are still many difficulties in implementation. However, there
have been a number of software companies specializing in providing management software in the enterprise market, with high flexibility, not imposing processes but allowing customization. The needs of each enterprise, in order to be easy to use, do not take much time to train employees, has quickly developed knowledge management software in the enterprise under the internal management module that allows protection and development knowledge resources, systematically store and develop hands-on experiences, build a culture of sharing and take advantage of collective knowledge.

For Vietnam at present although there has not been a strategy for developing a knowledge-based economy, like other countries in the region and around the world, several official documents of the Party and State have affirmed their determination in the industrialization and modernization of our country attaches great importance to applying elements of the knowledge economy. In the context of international integration and accelerating industrialization and modernization of the country, developing a knowledge base as a basis for the transition to a knowledge economy is an important and urgent work. Knowledge management model has implications indicating that the organizations with the best ability in collecting, cataloging and analyzing knowledge have superior advantages compared to their competitors.

With great efforts, in recent years Vietnam has made significant investments in technological innovation. As a result, some businesses have obtained modern and average equipment in the world, technological development in knowledge management is also paid attention to and developed in accordance with the trend of developed countries in the world. The Government has set a series of technological development targets in the process of industrialization and modernization of the country. These goals focus on improving the technological level, improving the capacity of domestic science and technology, as well as the capacity of selecting, acquiring, modifying and mastering imported technologies.

In addition to the government's investment policies, as a country that has just joined the World Trade Organization for a decade, with favorable conditions and available resources, foreign enterprises have not overlooking the advantages of investing in Vietnam, along with advanced scientific and technical achievements, Vietnam has close access to management technology in enterprises, including knowledge management, one of is the modern trend in current governance in the world. Although the level of investment and development interest is not yet uniform and widespread, it shows that opportunities for development in Vietnam are not small. With human resources who are industrious, creative and masterful of new and modern science and technology, meeting the country's renovation development needs, being receptive to advanced, modern technologies, businesses businesses have significant advantages in changing the operational structure from human management (traditional human resource management) to knowledge management, turning individual knowledge into collective knowledge to avoid brain drain. This is a praiseworthy fact that is happening daily in the economy.

Due to the low starting point and relatively late opening of the economy, many Vietnamese businesses currently do not have much contact with modern economic management methods. Many businesses still attach great importance to traditional resources such as capital, raw materials, labor, energy, land and other business premises without paying attention to the "gray resources". The technologies are extremely dynamic development in this area, as well as not focusing on proper development investment. This makes the knowledge content in products of Vietnamese businesses is still low compared to businesses of other countries in the region and around the world.

Cognitive problem - in general, the most difficult thing to implement in knowledge management in Vietnamese enterprises is probably the awareness issue. Only when knowledge is perceived as a strategic asset does the business leader consciously protect, maintain, invest and regenerate them into larger blocks of assets, contributing to improvement value for the business. Awareness is also in the company culture, in every personnel in the organization. By building the knowledge management apparatus, it is not a project in itself, but an endless process of accumulation, updating and creativity of each individual. So if you don't start building mechanisms, knowledge management systems right now, maybe one day the organization itself, this business will become an empty, poor and catastrophic apparatus in the marketplace.

The problem of building knowledge management system - business has a hard time forming a knowledge management system. Today, companies work on project-oriented. Each member is picked up from different functional departments to form a unique team. Teams after finishing a project often move to a higher project or scattered to other projects. The knowledge, experience and skills acquired during product and service development are not transferred to the project teams in charge of developing the following versions during the evolution of that product service. In addition, with the team and project organizational structure, the skills developed during the collaboration process will be lost immediately after the team disintegrates and the knowledge, procedures and processes are lost which will not be able to reuse in the future. A knowledge management system in this case will help businesses capture the knowledge that has been produced in projects, allowing further distribution and reuse of them in the future.

Knowledge management labor issues - the most difficult is the management of knowledge labor. The individual workers, the managers often have the view that they can lose the advantage when sharing their knowledge and they will only share the knowledge when it benefits them, when the benefits. This is greater loss than the combined losses and risks they incur. Brain drain is a major challenge for businesses today. Retaining talented and experienced people is extremely difficult because of the pressure and benefits that competitors offer, especially joint venture companies with foreign elements. Employees of the remaining companies are too big. Knowledge management in enterprises requires knowledge managers (CKO - Chief Knowledge Officer) with full qualifications and competence. Business will take a lot of cost and time to find a good, experienced CKO. For the remaining knowledge workers of domestic private enterprises and state agencies,
there is limited time, pressure from the family, the demand for rice and money, and the nature of the work. In accordance with the capacity and at present, those domestic enterprises do not yet have the preferential treatment and appropriate incentives will greatly affect the productivity of those workers in these economic areas.

4. Solutions to enhance effectiveness of knowledge management

   Knowledge is an asset of an enterprise. Like other types of resources, if the internal knowledge resources in the organization are not perceived and well managed, they will accidentally cause losses and create extremely dangerous gaps for sustainable development. In fact, knowledge exists individually within each individual through the process of absorbing information and gradually transforming it into knowledge that only that individual can actively use and share. In order for each individual’s knowledge to transform into the knowledge of the organization so that everyone can exploit and use it for a common purpose, it is necessary to set up an operating mechanism for this process. In the process, the leader plays a very important role through encouraging, recognizing, creating favorable conditions, being proactive and actively participating. This process not only aims to enrich individuals’ knowledge but also enhances their ongoing motivation to learn. Here are some experiences of knowledge management that have been summarized by major organizations in the world [1,3]:

   a. Knowledge management policies and procedures should be documented for easy reference, deviation detection and adjustment whenever necessary.

   b. Building a unified document system (knowledge database) to transmit, exchange, share, adjust and thereby perfect the knowledge.

   c. Focus on training, knowledge transfer, building a culture of sharing. Take advantage of the experience of more experienced individuals, encourage and make them feel responsible for sharing and transferring to others. Take advantage of the knowledge of other organizations and know how to protect their own knowledge when necessary.

   d. Continuously update information and learn experiences from what has been done and experiences of other organizations.

   e. Only humans can create knowledge, manipulate them and create new knowledge. We should continuously recruit and train them, accompanied by appropriate remuneration. A person’s knowledge is often greater than what he shows.

   f. Application of information technology to effectively and conveniently find, share and apply knowledge activities. The continuous creation process will make the knowledge base of the business become huge, so it requires information technology to store, classify, update and use in time and quickly in real time, as well as building knowledge and depth governance networks.

   g. The organizational structure must be flexible. People are central to the knowledge management process, encouraging mutual exchange and development of knowledge based on the spirit of mutual support and trust.

5. Reference