Knowledge Base in the Academia to Building Learning Organization in Business

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Abstract

Knowledge management being the keyword in the industry, organizations are keen to establishing the information system that effectively supports their staff in their using various types of knowledge and information. As one of the key technologies, we have focused on the learning organization. By applying this technology, we have made an experimental analysis on the effective use of the knowledge base in the academia in an overall industry.

First, we see the fundamentals in making business contents and try to find the differences between contents in the industry and those in the academia. Then, we explain the shape of contents suited to business use and how to transform contents in the academia for business use. Finally, we show how effectively we can apply the resources in the academia to the businesses by assisting the corporations in building learning organizations. We suggest that the concept of team learning conducted in corporations with professors as facilitators by using contents suited to business use and other traditional resources in the academia will certainly benefit both the industry and the academia.

1. Background

Knowledge management being the keyword in the industry, organizations are keen to establishing the information system that effectively supports their staff in their using various types of knowledge and information. As one of the key technologies to help establish the information system that enhances communication, we have focused on the learning organization which has been studied and implemented into practice mainly in the western countries since 1980-1990s. By applying this technology, we have made an experimental analysis on the effective use of the knowledge base in the academia in an overall industry.

2. Findings on the differences between contents in the industry and those in the academia

2.1 Business contents in use

Since business organizations operate based on the return on investment, they naturally assess the value of contents from various points of view. Of them, the time spent for the training is one of

the most critical factors.

Our company has been supplying staff-training and management-information contents under the name of BISCUE Business Contents to the industry for approximately 15 years. Business subjects include sales, marketing, accounting, management, personnel and legal affairs among others.

As case studies, we will show you two of our most popular contents used in business in practice. The first one relates to legal compliance and is used for providing trainings to salespersons through various medias such as e-learning, DVD, VHS and mobile. The flow of the course is as follows.

Course:

"Compliance in Sales 1. Sales Activities & Laws"

A) Sales contract (What means sales?/ Laws and regulations relating to sales activities.)

B) Talks in sales

The course starts from explaining what "sales" means from legal aspects by using a case. Then, it continues an orientation about laws and regulations relating to sales activities. Finally, it provides some of the good-practices and bad-practices when salespersons' talking with customers or prospects in their routine businesses. You will see the direct approach to an orientation about how to comply with laws and regulations in sales activities.

The second one is an explanation about marketing research by using a questionnaire. It consists of 3 courses which are as follows.

Course (1)*:*

"Marketing Research in Practice-Questionnaire 1.Planning and Sampling"

A) What is a questionnaire?

B) How to use a questionnaire (Advantages and disadvantages/ What to ask)

C) How to plan a survey using questionnaires (Planning/ Sampling)

Course (2):

"Marketing Research in Practice-Questionnaire 2.How to Make a Questionnaire"

A) Before making a questionnaire

B) Questions (Overall flow/ Consider the styles of answers/ Determine the choices for answers)

C) Information about answerers

Course (3):

"Marketing Research in Practice-Questionnaire 3.Tabulation and Analysis"

A) Check answers and input them into a computer.

B) Simple tabulation (Choices for answers/ Other answers)

C) Cross tabulation etc. (Cross tabulation/ Various methods for analysis)

The courses begin with defining the questionnaire. They then explain how to use it, advantages and disadvantages, and what to ask. Next, they continue to the planning of a survey, sampling and how to make a questionnaire. Finally, they explain how to check answers, make simple and cross tabulation and analyze the results.

The point is that all courses solely focus on how to succeed in marketing research in practice by avoiding possible mistakes or misguided information thus collecting correct information from the market.

Having heard various comments and requirements from our users while making the courses such as above, updating them and supplying them for use, we can list up the principles in making business contents as follows.

1) Focus on an immediate interest of the audience.

Every businessperson tends to have an interest in the subjects directly linked to his or her job. For salespersons, compliance in sales falls into their attentions.

2) Supply an easy-to-understand orientation.

Businesspersons usually work in routine schedules, thus being nervous in spending their time in indirect practices. Consequently, the time to understand contents is definitely of their concerns. They hate hard-to-understand contents.

3) Supply dense information.

Time being the concerns of businesspersons, the density of information can be another solution to them. Contents should carry as much information as possible within a limited length of time, while making learners get a whole picture or a hint of them into their memories.

4) Provide searchability.

Within a limited length of working hours, businesspersons love instant searching mechanisms for reaching precise information. For them, the contents once learned and understood could be better solutions than others. The right information at the right time is a key to them.

2.2 Differences between business contents and those in the academia

As a continuation of K-12, the contents in the academia have been developed in the pedagogical sequence, which does not always fit the business needs. Businesses use contents for instant results, thus focusing more on the practices in the operations.

Here we go back to the first example of the previous chapter, legal compliance in business. Supposing that we select learning materials relating to business laws for higher education, our common choices would go to the traditional textbooks covering mercantile law, business law, civil law and other legal references.

A typical course for the Business Law recently implemented in Japan would begin as follows.
A) What is the business law?
B) Trade names
C) Employees
D) Agents or sub-contractors
E) Stock companies (to be continued)
When teaching the business law to students in higher education, professors naturally focus on the details of the business law.

First they explain the background of the

business law which includes establishment of the law, comparison with the business laws in other countries and other laws in Japan, among others. Then they go into each part of the law. Their orientation focuses more on the meaning of each article, not on the cases in practice.

Professors are not necessarily required to follow the sequence of the articles of the law. However, that sequence would be the one best suited to students' learning habits, simply because their purpose of learning is to understand the law itself.

Of course, not all of the business law professors teach as above. However, if we were learners or teachers in the academia not in business, most of us would prefer proceeding in a normal sequence that is the sequence of the articles of the business law, even skipping some of the articles which wouldn't be of our interest.

Further to the above, we can find another difference even in explaining the same legal aspect. See a simple case as follows.

Question

Who is liable in the following case?

A)   "A" offered their merchandise to "B."

B)   "B" agreed to purchase the merchandise from "A" on condition that "B" wouldn't be able to cancel the order.

C)   "A" sent their merchandise to "B" with a debit note.

D)   "B" wasn't satisfied with the quality of the merchandise, didn't ask "A" to improve the quality and cancelled their order immediately.

Answer

"B" is liable.

The professors in the academia will naturally explain that "B" is liable. "A" is not required to accept the cancellation and has a right to charge to "B" from the legal point of view.

What happens in business? "B" is definitely liable. However, the manager of "A" could think of the future businesses with "B", thus possibly accepting the cancellation as an exception.

Let's see the second example, marketing research in practice by using questionnaires. What courses will be common relating to this subject?

Questionnaires are used for an analysis of a large number of samples. Naturally, the learners are required to master the statistics. We have plenty of courses for the statistics in the academia. A typical course of statistics could cover the followings.

-    Probability theory

-    Statistical methods

-    Descriptive statistics

-    Inferential statistics etc.

How about the process of a survey? Of course, we could find courses which provide a practical orientation. However, the number of courses relating to the surveying process would be definitely less than that of the statistics. This is probably because the statistics involve more pedagogical information which are useful for students.

Here we can find a difference between business contents and those in the academia.

A)   Business contents are made primarily to be

applied to business practices by learners.

B) Contents in the academia are made primarily to be learned and understood by students.

We could redefine as follows.

A) Business contents are for goal-oriented and extrinsic motivation.

B) Contents in the academia are for personal mastery and intrinsic motivation.

Contents in the academia also have the following features which business contents rarely have.

A) Studied and mastered during a relatively long term.

B) Learned occasionally through discussions or classroom workshops.

All these differences are reflected in producing two different types of contents.

3. How to narrow the gap among different types of contents

3.1 Shape of contents suited to business use

In the previous chapter, we have listed up the following principles for business contents.

- Focus on an immediate interest of the audience.

- Supply an easy-to-understand orientation.

- Supply dense information.

- Provide searchability.

According to these principles, we will be trying to figure out the shape of contents suited to business use.

1) Duration & Media

Based on a long experience in supplying various contents to the industry, we have found the following duration will be accepted most for each media by the audience.

VHS	2-5 minutes for each chapter and 15-30 minutes for a whole course
DVD	2-5 minutes for each chapter and 20-45 minutes for a whole course
e-learning	1-5 minutes for each presentation, 10-20 minutes for each chapter and 1.5-3 hours for a whole course
Mobile	1-3 minutes for each presentation, 2-5 minutes for each chapter and 20-30 minutes for a whole course

Duration depends on the subject. It can be longer than those indicated above. However, business contents not being an entertainment but in some sense an enforcement, we have to consider the duration which will not frustrate users.

The audience requests an easy-to-understand orientation with dense information within a limited length of time.

2) Style of information

According to the dual storage model of Atkinson and Shiffrin (1968), we have two types of memories that are short-term and long-term memories. Tulving classifies the long-term memory into episodic, semantic and procedural memories (1983).

Based on the past studies, the episodic memory works better when applied to practice. As businesspersons use their memories in their

daily practices, they would prefer having memories as episodes. The question is whether they have time to learn the subjects for their episodic memories.

Our conclusion is that we provide dense information in our business contents so every user can get a hint of the information instantly and retrieve the necessary part when needed. By using the definite wants of persons. we can instill information into their episodic memories.

For an easy retrieval of the information, the contents naturally require an indexing. This means we have to provide users with a whole picture of the contents and a mechanism to search each part of the information.

3) Sounds

Sounds in business contents have apparent effects on the audience. They provide an impact on the presentation and make it an episode to some degree.

However, human narration being unable to be shortened, it can't always be accepted in businesses simply because of the time factor. Furthermore, contents without sounds will definitely be required by the handicapped persons.

Here we have to consider two different aspects of business contents relating to sounds. One is for an impact and the other is for an immediate and practical use.

Business contents should work without sounds for a rapid learning, quick retrieval and practical use. But, when making business contents, we should consider integrating sounds effectively.

4) Updateability

Business environment always changes. Laws and regulations, industry standards and self-restraints, human habits, fashions and trends, among others do not stay as they are.

Since the business audience is sensitive to the details in practice, we have to supply updated sources to them by establishing a solid system that supports day-to-day review of the contents and updating them.

For this purpose, the Learning Contents Management System (LCMS) would be a solution. The system we have built consists of the following.

A) Database of original sources including URLs to link to outside sources
B) Other related knowledge base
C) Monitoring system for routine review of the contents
D) Authoring tool
E) Generators for different types of medias such as SCORM generator for e-learning
F) Generators for metadata for outside search engines such as LOM

Further to the above, a team of searchers, production staff and engineers headed by the manager are essential in maintaining the reliability and usability of the business contents.

3.2 How to transform contents in the academia for business use

When transforming contents in the academia and applying them to real businesses, we are

required to focus on the return on investment. Agile being the key issue in a recent business society, a rapid transfer of knowledge to individuals is further required in every stage of routine activities than before.

Under the circumstances, traditional contents in the academia have fewer chances to be used in real businesses. However, when building the learning organization, we have found that there could be ways of using these valued assets in an effective manner.

We had plenty of studies about organizational learning such as those by Chris Argyris in 1970-1980s. In 1990, Peter Senge published "The Fifth Discipline" which advocated building a learning organization by using the following 5 disciplines.

A) Personal Mastery

B) Mental Models

C) Shared Vision

D) Team Learning

E) Systems Thinking

Thereafter, many western corporations had adopted his principles, followed the disciplines and achieved their cutting edge in the marketplaces.

According to the author, westerners while being goal-oriented will find it difficult to build the learning organization. He says eastern cultures won't find it difficult by explaining that in Chinese, "learning" literally means "study and practice constantly."

Here we can divide the learning, teaching or knowledge-transfer into two different categories as follows.

	(1)	(2)
Knowledge transfer	learning	training/ teaching
Mind	personal mastery	goal-oriented
Concept	learning organization	agile
Term of scope	long-term	short-term
Culture	eastern	western
Organization	educational institutions	business entities

Education in the academia requires that students learn for their personal mastery, while the learning organization promotes individual personal mastery.

Business entities pursue the return on investment (ROI), thus requiring agile for their practices. Kevin Oakes for ASTD (American Society for Training & Development) says that most executives care about the following 3 things.

A) How can I increase revenue?

B) How can I reduce expenses?

C) How can I improve cycle time?

They care about both short-term result and long-term sustainable development. For long-term in particular, the learning organization will be a solution.

Based on the studies above, our conclusion for transforming contents in the academia for business use will be as follows.

A) Consider business contents already in use as teaching stuff in the academia while understanding that they are for the 3 concerns of the executives mentioned

above.

B) Include the traditional and proven know-hows in the academia while using business contents in their classes.

C) Feed back the best-practices to the business society so they can enhance their employees' personal mastery.

3.3 Resources in the academia to apply for learning organizations

One of the suggested methodologies to building the learning organization is team learning.

In Japan, we established numbers of QC (Quality Control) circles in most of the manufacturing plants and in other companies as well which successfully functioned as the places for team learning. Japanese "kaizen" meaning improvement was referred to in the world business society.

In implementing QC circles, we needed group leaders who facilitated the meetings and joint-works of the members. We now call them "facilitators." As a core of the team learning they can function in routine trainings including through e-learning (distance learning) to bring about better training results.

Here we find the application of the resources in the academia to the businesses.

A) Professors in the academia to work as the facilitators for team learning.

B) Professors in the academia to proceed in blended training by using both business contents and contents currently used in the academia.

Facilitators are required to have the skills to motivate team members, which professors naturally have while motivating students in daily classes.

Furthermore, professors can assist team members in their understanding the specific subjects, while most other facilitators can't support them in those areas.

Based on the considerations above, we assume the combination between the professors and other assets in the academia and business contents will be an effective solution to building the learning organization in business. The approach will be as follows.

A) Organize a team of members for team learning.

B) Select the business contents which can motivate the team.

C) Recruit the professor who can work as a facilitator by using the contents.

D) Implement the team learning with the professor, while helping build the learning organization.

4. Studies to continue

Based on an experimental analysis on the technology of building the learning organization in business by integrating a variety of resources in the academia and business contents in use, we further continue our studies.

By using our business contents of 300 titles which are already in use, we plan to proceed as follows.

A) Organize a team with a professor for team learning.

B) Select the subject of business contents the professor can work as a facilitator.

C) Implement the team learning.

D) Try to find the subjects best suited to team learning.

E) Try to figure out what courses and how many courses should be learned in a team for building the learning organization.

As we are in an initial stage to provide the service for building the learning organization by using the resources in the academia, we would highly appreciate any suggestions and recommendations.

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