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A PROPOSED STRATEGY FOR ENHANCING PERSONNEL'S KNOWLEDGE SHARING UNDER THE OFFICE OF VOCATIONAL EDUCATION COMMISSION.

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ABSTRACT

A proposed strategy for enhancing the personnel's knowledge sharing under the Office of Vocational Education Commission was developed. The participants consisted of 376 instructors from the Office of Vocational Education Commission with eight experts who scrutinized the constructed instrument in the focus group discussion. A two-part questionnaire was constructed by using the five-point Likert scale and had the reliability values of 0.84-0.97. Percentages, arithmetic mean, standard deviation, and stepwise multiple regression analysis were used for analyzing of the data and the Baconian inductive method (method of agreement and method of difference) was used to review the outline of the strategy. The results revealed that the personnel's knowledge sharing under the Office of Vocational Education Commission was at a high level. There were three factors significantly affecting the personnel's knowledge sharing under the Office of Vocational Education Commission. The priorities of factors that affect the personnel's knowledge sharing were ranked from the high priority to the lowest priority, as follows: management system, leadership, and organization climate. The factors were jointly used as a predicted equation of the personnel's knowledge sharing under the Office of Vocational Education Commission with a percentage of variance at 29.8. The proposed strategy for enhancing the personnel's knowledge sharing under the Office of Vocational Education Commission consisted of three sub-strategies, i.e., management system, leadership, and organization climate.

Keywords: Strategy, knowledge sharing (KS), Vocational Education Commission (VEC).

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INTRODUCTION

Nowadays, the public and private organizations pay more intention to the creation of knowledge based and intellectual capitals. Knowledge is important and regarded as a core strategy for the improvement of management and human resources performance in all organizations (Drucker, 1998).The vital keys of innovation of the organization consist of the continuous organization's development by using knowledge, supporting the personnel to use their own knowledge, and cooperation in their work. It has been shown that knowledge is able to create a more knowledgeable worker. Moreover, the foundation of learning organization (LO) is the expansion of the organization's capability to reach its goal. Knowledge management (KM) is an important measure to push the organization to the LO and to maintain the knowledge within the organization as well. The effective way to manage the knowledge is to translate individuals' and groups' knowledge to organizational knowledge. KM involves the panoply of procedures and techniques used to get the most from an organization's tacit and codified know-how (Teece, 2000). KM is not about managing technology alone, but is about managing how human beings can share their knowledge effectively. KM generally refers to how organizations create, retain, and share knowledge (Argote, 1999; Huber, 1991). Sharing knowledge, i.e., tacit and explicit, requires efforts on the part of the individual doing the sharing. Knowledge sharing (KS) is most likely to support the successful KM in the organization by circulating the knowledge within the organization continuously. Beckman (1997) has specifically argued that KS is one of the most important factors affecting organizational agility and performance. The knowledge is produced by the cooperation of the organization's staff members and the variety of communication channels, i.e., printed matters, voice media, information technology (IT), and interpersonal communication. The main premise of KS is that individuals mutually exchange their tacit and explicit knowledge and jointly create new knowledge to increase their ability to achieve individual and organizational goals (Lin and Lee, 2006; Van den Hoof and De Ridder, 2004). Moreover, Soekijad and Andriessen (2003) define KS as seeking advice, giving advice, and sharing experiences among employees in such a way that it gives employees the opportunity to apply the acquired knowledge in their own work environment.

Education is the most important foundation for national development, progress, and problem solving. School should be able to integrate their gained knowledge by using systematic KM which properly suits the school's culture. It is noted that all staff members have varieties of knowledge, experiences, skills, and expertise which will be able to develop the school to a successful level. On the other hand, the school has the duty and responsibility for effective time management for how the instructors spend their time, opportunities, and chances to develop cooperation, and share their knowledge together. The Office of Vocational Education Commission (VEC) is setting up its own vision to commit to improve vocational education management to an excellent level of learning. The Office of Vocational Education Commission has the responsibility to look after five categories of colleges, i.e., technical college, vocational college, college of agriculture and technology, polytechnic college, and community college. The school also has to push its instructors to build their potential up to the maximum level and pay intention to provide a knowledge-sharing environment. The learning organization has to focus on the staff's learning, sharing knowledge, motivating, and implementing jobs in a friendly climate at all times. For the effectiveness of the Office of Vocational Education Commission management, it also needs the appropriate knowledge sharing system which directly serves the instructor's needs. The school has to pay attention to focus on developing and implementing a variety of techniques and information technologies to enhance the staff members. Schools also need to have an educational knowledge network. Moreover, the KS in school is a

tool for the development of the instructors, work, and organization management. When the school can integrate the KS with the practice of instructors, it is the developing of the learning of the students, which improves them to reach their higher capability.

All information concerning theories, concepts, and relevant research were explored, studied, and used as basic information for the development of a strategy for the enhancement of the personnel's knowledge sharing under the Office of Vocational Education Commission. The conceptual framework was draw-up by based on all aforementioned basic information. The result of this study will serve as a guideline for the development, setting up the policies and plans of the personnel's knowledge sharing in schools under the Office of Vocational Education Commission.

The objective of this study was aimed to develop a strategy for the enhancement of the personnel's knowledge sharing under the Office of Vocational Education Commission. The concept framework of this research was based on Petersen's and Poulfelt's idea (Petersen and Poulfelt , 2002), which defined into the six principles of KS, i.e., knowledge storing, knowledge distribution, knowledge exposure, knowledge transfer, knowledge exchange, and knowledge collectivism. It has been postulated that the factors affecting the personnel's KS under the Office of VEC were consisted of five factors, as follows: management system, leadership, organization culture, organization strategies, and organization climate.

METHODOLOGY

Sample

Three hundred and seventy six participants from a population of 16,460 instructors who have been working in s404 colleges under the Office of Vocational Education Commission during the academic year of 2008 were selected by Stratified Random Sampling following the table described by Krejcie and Morgan (Krejcie and Morgan, 1970).

Instruments

The instrument was constructed as a questionnaire, which consisted of two main parts using the five-point Likert scale, and the Baconian inductive method. Attempts had been made in a series of development, i.e., studying the concepts, theories, and existing documents related to the factors affecting the personnel's knowledge sharing under the Office of VEC. The first part of the constructed questionnaire consisted of 31 questions, where the second part which dealing with the personnel's knowledge sharing under the Office of VEC consisted of 30 questions segregated in six aspects. The questions synthesized by based on the operational definitions. The thesis advisory committee reviewed the constructed questionnaire for the face validity of the questions. The questionnaire was subsequently modified according to the suggestions of the advisory committee. The five professional experts reviewed the modified questionnaire to verify the content validity against the Index of Items - Variable Congruence (IVC). The questionnaire was finalized according to the suggestions of the five experts in the field. An analysis of the data was done to determine the Internal Consistency Reliability using Cronbach's Alpha method (Cronbach, 1990), and it was found that its reliability was ranging from 0.84-0.97 (Cronbach, 1990).

The constructed instrument was sent out with stamped return-envelopes to 345 selected participants (91.75%). All returned questionnaires were checked for the completeness of information. An analysis of data was carried out using percentage, arithmetic mean, standard deviation and stepwise multiple regression analysis. The Baconian Inductive Method (method of agreement and method of difference) was used to review the outline of the strategies.

Regarding the drafting of the strategic improvement, the Self Assessment Report (SAR) from the school under the Office of VEC was analyzed. All information dealing with the concepts, theories, articles, and best practices related to the

knowledge management in Thailand's contexts were also used as the basic information to develop a proposed strategy. The focus group discussion was scrutinized by experts for evaluating the completion of the strategy that emphasized on four factors, i.e., utility standard, feasibility standard, propriety standard, and accuracy standard.

RESULTS

Three hundred and forty five sets of the questionnaires (91.45%) were returned. An analysis of the level of the personnel's knowledge sharing under the Office of VEC was conducted and results are summarized in Table 1.

Table 1. The summary of arithmetic mean and standard deviation derived from data obtained from instructors' opinions that relevant to the level of the personnel's knowledge sharing under the office of Vocational Education Commission.

No.	Knowledge sharing	$\bar{X}$	S.D.	Level of instructors' opinions
1.	Knowledge storing	3.37	0.68	Moderate
2.	Knowledge distribution	3.49	0.60	Moderate
3.	Knowledge exposure	3.31	0.73	Moderate
4.	Knowledge transfer	3.81	0.61	High
5.	Knowledge exchange	3.58	0.70	High
6.	Knowledge collectivism	3.71	0.64	High
	Total	3.55	0.54	High

It was found that overall opinion level of the personnel's knowledge sharing under the Office of VEC was at a high level ($\bar{X}$ =3.55). The average values of each aspect were ranging from 3.31 - 3.81, as shown in Table 1.

Results of an analysis of the factors affecting the personnel's knowledge sharing under the Office of VEC are summarized in Table 2.

Table 2. Results of stepwise multiple regressions in predicting the factors affecting the personnel's knowledge sharing under the office of VEC.

The sequence of variables to the equation of the predicted equation.	R	R^2	Adjusted R^2	F
Management system (X_3)	0.513	0.263	0.261	133.778*
Management system (X_3), leadership (X_1)	0.535	0.286	0.283	11.997*
Management system (X_3), leadership (X_1), organization climate (X_4)	0.546	0.298	0.292	5.980*

Results of an analysis of the stepwise multiple regressions in Table 2 showed that the management system (X_3) factor was able to predict the personnel's knowledge sharing under the Office of VEC with the statistical significance at 0.05 and the coefficient of prediction (R^2) was 0.263. This result means that the management system (X_3) factor can be used in a predicted equation of the personnel's knowledge sharing under the Office of VEC at a percentage of 26.3.

When the leadership (X_1) factor was added to the equation, the coefficient of prediction (R^2) was 0.286. Therefore, the leadership factor was able to increase the effectiveness of the prediction with a statistical significance at 0.05. Consequently, management system and leadership factors can jointly be used as a predicted equation of the personnel's knowledge sharing under the Office of VEC at the percentage of 28.6.

When the organization climate (X_4) factor was added to the equation, the coefficient of the prediction (R^2) rose to 0.298. Therefore, the organization climate factor could increase the effectiveness of the prediction with a statistical significance at 0.05. Consequently, management system, leadership, and organization climate factors can jointly be used as a predicted equation of the personnel's knowledge sharing under the Office of VEC at the percentage of 29.8.

Table 3. Coefficient values of the stepwise multiple regressions in the predicted equations of the factors affecting personnel's knowledge sharing under the office of VEC.

Variable	b	SE_b	β	t	Significance
Management system (X_3)	0.715	0.058	0.235	2.993	0.003
Leadership (X_1)	0.131	0.049	0.186	2.676	0.008
Organization climate (X_4)	0.124	0.051	0.176	2.445	0.015
R = 0.546					
R2 = 0.298					
F = 5.980*					
SEest = 0.130					
a = 1.946					

* $p < 0.05$

It was found that the management system (X_3), leadership (X_1), and organization climate (X_4) factors could jointly be used as predicted equations of the personnel's knowledge sharing under the Office of VEC with a statistical significance of 0.05. These factors could also explain the variance of the personnel's knowledge sharing at a percentage of 29.8 with the statistical significance at 0.05. The coefficient of the stepwise multiple regressions in raw scores (b) were 0.715, 0.131, and 0.124, respectively, whereas the coefficient of the stepwise multiple regressions in the standard score (β) were 0.235, 0.186, and 0.176, respectively.

The multiple correlation of criterion (Y) and the predicted variables (X_3, X_1, X_4) were 0.546, and the standard error of estimate was 0.130. The significantly predicted equations of the factors affecting the personnel's knowledge sharing under the office of VEC were as follows:

The predicted equation in terms of raw scores was:

$$Y = 1.946 + 0.175\ X_3 + 0.131X_1 + 0.124X_4$$

The predicted equation in terms of standard scores was:

$$Z_y = 0.235Z_3 + 0.186Z_1 + 0.176Z_4$$

The outcome of this research was that the strategy which connects the supporting factors to the six principles of KS is called "Strategic Knowledge Sharing Three Dimensions: SKS3D" which divides the strategy, as shown in Figure 1.

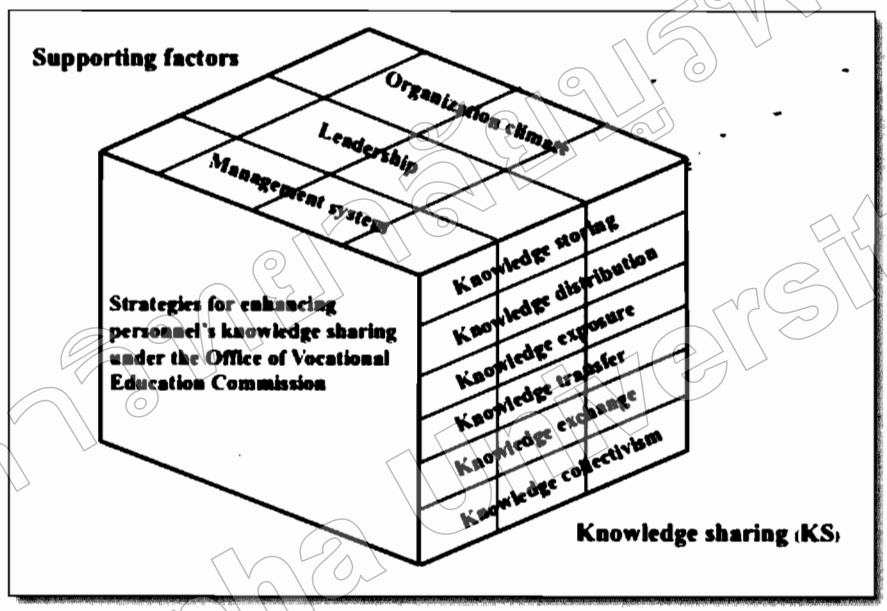

Figure 1. A schematic diagram of the Strategic Knowledge Sharing three dimension: SKS3D.

Strategies for enhancing the personnel's knowledge sharing under the Office of VEC were divided into three sub-strategies, as shown in Table 4.

Table 4. The detail of sub-strategies for enhancing the personnel's knowledge sharing under the Office of VEC.

Sub Strategy	Method
Management system	1. Building operation systems for KS. 2. Setting staff for management KS. 3. Providing budget, instruments and materials for KS. 4. Providing a system is a useful way to find out knowledge both inside and outside school. 5. Organizing multichannel communication for KS.

	6. Monitoring and internal supervision in KS activities. 7. Providing a learning network by participating in both inside and outside school. 8. Developing evaluation systems for KS consistently.
Leadership	1. Leading as role model in KS. 2. Developing empowered leadership for his/her self. 3. Providing multichannel in communication between staff and leader. 4. Providing activities for learning and helping staff make sense of the KS. 5. Providing study by best practice of KS by site visiting. 6. Building KS network by collaborating with the stakeholders outside school. 7. Following, evaluating, and improving the results of KS activities. 8. Promoting performance-based on reward systems for KS activities in schools.
Organization climate	1. Distributing staff friendship and trust atmosphere in school. 2. Setting time for KS communication: both informal and formal. 3. Supporting working conditions for staff to learn in school. 4. Managing relationships by setting up complimentary and healthy activities. 5. Coaching, walking around and monitoring staff with a friendly atmosphere by the leader. 6.Providing support KS activities in the workplace. 7. Managing teams for operating community of practice in school. 8. Building the teams for promotion and motivation for KS.

DISCUSSION

There are three parts of discussion of the research results on developing strategies for enhancing the personnel's knowledge sharing under the Office of VEC, as follows:

The level of overall opinion of the personnel's knowledge sharing under the Office of VEC is at a high level. When each aspect was analyzed, the mean values decreased from knowledge transfer, knowledge collectivism, knowledge exchange, knowledge distribution, knowledge storing, and knowledge exposure, respectively. Because of the instructors have some experiences of knowledge, understanding, and intention in the knowledge sharing, and activities of their own jobs. Each instructor has some experiences of the knowledge from the training, seminars, exhibitions, and academic studies, which are merely self-developing but not developing the school. Therefore, the schools should support KS to encourage the instructors to share their vision via activities, which will set up the chances for sharing the knowledge among the instructors, formally and informally. Those activities will add up the instructors' skills and usage of new information technology to set up the network, such as databases, intranet, home pages, and Web portals for the instructors. The effective way for managing knowledge is to translate the individuals and groups' knowledge to organizational knowledge (Van den Hooff and De Ridder, 2004). The school organization needs to provide opportunities for horizontal and vertical communication as well as to capture tacit knowledge (Nonaka, 1991). Davenport (1997) stressed that information should be communicated in a compelling way that encouraged the right people to recognize and use it. He concurred; it is easier to say than to do, because that good engagement requires useful content, accurate sources, and conducive situational attributes.

The results of this study can significantly predict the equation of the factors affecting the

personnel's knowledge sharing under the Office of VEC. It was found that three factors: management system, leadership, and organization climate supported the personnel's knowledge sharing under the Office of VEC. The main reason for these results was that the instructors in schools always have other duties than teaching. For example, they have to act as chief officer or co-officer of the faculty. The organization system in schools should encourage flexible positions in working and sharing the knowledge of their instructors. Therefore, the school's executive will not only support the above-mentioned issues for knowledge sharing among the instructors, but also arrange others measures, for instance, meetings, trainings, seminars, conversations, or consultations. The school has plenty of knowledge and innovations but it lacks the usage of the knowledge, which might be affected from the lack of social factors, time, chances or skills of the instructors individually. The transferring, exchanging, and consulting of the knowledge and experiences by the instructors were very difficult. For this case, the KS will encourage the instructors to not only transfer their knowledge but study and obtain new knowledge by several channels. In addition, the instructors were encouraged to talk, exchange, and transfer knowledge while attending the activities freely. It may also build the self-confidence of the instructor to share and transfer their knowledge to others. KS increases when the instructors understand that it helps them to do their jobs more effectively, thus retaining their jobs to develop personally and professionally, to earn performance rewards, and to earn personal recognition. O'Dell and Grayson (1998) have suggested that organizational structures should be designed to promote flexibility as a means of encouraging sharing and collaboration within and across organizational boundaries and supply chains. Demarest (1997) found that KM is the process that makes learning possible to the staff in the organization; formally and informally, for expansion of the capability and innovating of products by mixing up with the knowledge and experiences. Therefore, the personnel of the organization is a significant factor for developing the learning organization.

Regarding to the focus group discussion, it was found that the conclusion of the strategy should consist of three sub strategies for enhancing the personnel's knowledge sharing under the Office of VEC.

Management system

Following the sub-strategy, the school should have systematic knowledge sharing. There are clear working process and continuous improvement in human resources. The Management system will support the knowledge sharing by clarifying the process and encouraging the instructors to share their knowledge. The instructors must understand that KS is the process that makes all people in the organization to learn and cooperate. All staff will be cooperating and sharing a vision without any obstacles. Likewise, the schools should adapt its knowledge context to serve the changing of the global. The instructors need to have many channels for communication, formal and informal ways. The effective exchange of knowledge will be setting up under a sharing environment and encouraging all involved people to express their ideas to the public. Education and training systems are a powerful means to transfer knowledge. Other techniques include the use of technology, meetings, conferences, written projects, tours and staff transfers. However, Pan and Leidner (2003) argued that organizations needed to provide multiple channels of communication to support the diverse knowledge sharing needs and preferences. Dutton and Starbuck (1979) found that face-to-face meetings and conferences were more effective in transferring computer simulation technology than exchanging documents, manuals, and correspondences. Teaw (1996) also stated that the goal of education management was for changing tacit knowledge to the explicit knowledge. Organization would finally upgrade the status of the organization to the learning organization by using creation, identifying, collecting, sharing and providing easy accesses to the knowledge measures (Horwitch and Armacost, 2002).

Leadership

In the following sub-strategy, the administrators will play a significant role to support and control the instructors'activities. Thus, for successful KS implementation, the visible leadership and commitment of top management must be sustained throughout the KS effort. The leadership strategy will provide good cooperation among the instructors by being supported by the administrators. The administrators will motivate and be a role model in the schools. Therefore, administrators will create the KS atmosphere which will lead to the knowledge sharing achievement. Administrators will encourage the instructors to have more faith in their abilities and believe that they can learn and improve themselves with knowledge by using information technology (IT). Finally, having leaders who coach, help, inspire, motivate, stimulate, action oriented, and constantly evaluates the processes based on the performance measures. Leadership is responsible for creating the knowledge vision of the organization, communicating that vision, and building a culture that regards knowledge as a vital company resource (Pemberton et al., 2002). To realize the potential of knowledge management, enterprise leadership must provide the proper environment to motivate its workers to enable the creation, organization and sharing of knowledge (Abell and Oxbrow, 1999). Stevenson (2001) recommends that the chief academic officers or other higher education administrators take on the role of chief knowledge officer (CKO), a "model for modern leadership in higher education".

Organization climate

In following the sub-strategy, the school should pay more attention to the organization climate by creating a good atmosphere in the work place. The atmosphere should be suitable for innovative thinking, constructing knowledge, exchanging knowledge, collecting knowledge, and easy access to the knowledge. Thus, fostering a spirit of teamwork based on trust is an essential factor for the successful implementation of KS in schools. Consequently, the instructors who share their knowledge will be able to analyze and transfer it to 'wisdom' for an effective working organization. Furthermore, the school's social nature of learning allows staff to meet one another, gives them time to do so and tells them to talk and that sharing ideas are valued. Simonin (1997) found that empirical support for the hypothesis that the collaborative knowledge-sharing experience supported the development of competence at working collaboratively. Nadkarni (1995) suggested that members of an organization must work together and build on each other's ideas and strengths. The learning material is not only 'transported' to the workplace, but also 'translated' for use in the workplace (Garnett, 2001).

In conclusion, the strategies for enhancing the personnel's knowledge sharing under the Office of VEC focus more on the management system in KS planning, structuring and methods which has to cover all the knowledge activities of schools. This strategy will lead to the knowledge leverage in the schools by the administrators who have the leadership skills. The suitable adaptation of the strategy depending on each school's conditions, will provide chances, activities, times, places, and tools for the knowledge sharing. Lastly, the administrators were the main factor for the commencing and developing the knowledge sharing in the schools. Successful KS requires a balance and coordination between the top-down articulation of policies and the bottom-up cultivation in the school. In summary, KS strategies' are needed to be an integral part of the core school policy and in daily work routines. Finally, the researcher found that the three sub strategies altogether will support the school to implement the KS activities effectively. With one missing sub-strategy, the KS in the schools will be a failure.

Based on researcher findings, The Office of VEC should support strategies for enhancing the personnel's knowledge sharing under the Office of VEC at all levels. Future KS research should build on developing a key performance index of the personnel's knowledge sharing under the Office of Vocational Education Commission.

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