Knowledge Management in Managerial Accounting Using Webboard

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Abstract
The purpose of this research consists of 1) to develop the webboard for student learning activities and KM, 2) to compare the learning achievement of the managerial accounting and 3) to study the satisfaction of the webboard for student learning activities and KM. The samples group of this study was 115 accounting students from department of accounting, Rajamangala University of Technology Rattanakosin. The sample was obtained by using the simple random sampling method and used one-group pre-test/post-test evaluation design. Research methods were applied to collect quantitative data using questionnaires. The 60 questionnaires have been used as instrument to measure the learning achievement. The results shown that as following: the satisfaction of the panel experts and students on the system, the mean was 4.74 with the standard deviation was 0.80, the satisfaction was in the “strongly agree” level. The satisfaction of using the system for learning environment was 4.26 with the standard deviation was 0.79, the satisfaction was in the “strongly agree” level. This can be concluded that the developed system can be utilized for this course.

Keywords
Managerial Accounting, Webboard, Knowledge management

1. Introduction
Access to information and knowledge is very important for people. However, there are restrictions on access to this information for certain groups of people [1]. Education is an important basis for development in the nation in the long term, in Thailand the concept of Education for all has been well recognized and translated into action. As a consequence, our National Education Scheme of 1992 was designed to assure continuous and life-long learning for all to wisdom, spiritual, and social development. However, there were some major problems calling for urgent reform. Main causes of the problem could be identified as: overcentralization, lack of unity in educational administration, lack of media for support learning, lack of participation and lack of learning activities.

Managerial accounting is concerned with providing information to managers that is, people inside an organization that direct and control its operation [2]. Managerial accounting provides the essential data with which the organizations are actually run. Managerial accounting is also termed as management accounting or cost accounting [3]. Thus, Managerial accounting is very important for business and learning. Students should be study and in deep understanding. Managerial Accounting is needed to reform learning activities. Traditionally, such practice needs to be done on a one-to-one, face-to-face basis, especially for students. Therefore, face some problem such as lack of Instructor and expert for support them. There are some computer programs facilitating this type of practice. However, this study aims to describing the concept of a knowledge management in managerial accounting using webboard for support learning achievement.

At present, the education technology is an impotent tool to develop innovation [4]. Many researchers rethink the way to develop innovation for learner. Knowledge management using webboard system is a one thing for creates a variety of ways to deliver and provide electronic resources for learner. They can select the lesson that they want to learn and interactive with friend and Instructor. The features of the system are online program that have subjects and details of several lessons and support knowledge management, learning activities.
Therefore, this study presents research to develop the webboard for student learning activities and knowledge management. It is a knowledge management system that is used to supplement managerial accounting teaching by presentation learning activities, knowledge management and collaborative learning. This course provides for undergraduate accounting students. The researcher expects that this system can increase wisdom and development students and that knowledge can be applied successfully.

2. The Approach
This study presents the system of webboard for student learning activities and KM and used a tool for managerial accounting course. It was developed based on the Participatory Integrated Design Process (PIDP) [5] consists of four design phases: needs analysis, conceptual design, development, and evaluation each of which has its own design processes.

Fig. 1 Participatory Integrated Design Process (PIDP)

- Phase 1: The Needs analysis was concerned with gathering, analyzing, and summarizing information necessary to build the learning environment prototype.
- Phase 2: The conceptual design phase focused on four design processes that translate user requirements into a conceptual user interface and instructional design: design scenarios development, information design, structure design, and page design.
- Phase 3: The Development phase was aimed to construct a high-fidelity prototype of the learning environment, based on results of the initial user evaluation on low-fidelity prototypes. This phase consisted of three design processes, which translate the conceptual user interface and instructional design into the high-fidelity prototype of the learning environment: low-fidelity prototyping, design walk-through, and high-fidelity prototyping.
- Phase 4: Evaluation process, this studies modified two steps of systematic design of instruction evaluation approach, Expert Review and Small Group Evaluation.

3. Learning environment of Knowledge Management in Managerial Accounting Using Webboard
The objective of this topic is to explain how researcher can use such a system to manage an active learning environment. There are at least six key aspects of successfully leading for learning environment of Knowledge Management in Managerial Accounting Using Webboard. These six principles are:

1. Information organization and retrieval: one must carefully structure the activities in a course into different conferences or discussion forums, so that all of the information in one conference pertains to a small number of related topics, and no one conference gets so large that nobody can find anything in it.

2. Synchronization of the class as a whole: set clear guidelines for what is to be done where and when and strictly enforce them, to maintain the order that was laid out in the organization of the conferences.

3. Coordination, Collaboration, and Socializing among the members: motivate, encourage, and facilitate truly active and collaborative interaction among the students. It is also to build up trust and openness in the expression of views. This requires an active and ideally daily presence by the instructor.

4. Sharing of knowledge: given the usual mix of students with considerable working experience and those without, it is extremely important to have the experienced students try to understand the concepts of the course in terms of their real life experiences and to bring those understandings to the rest of the class. Students then take the pronouncements of the professor far more seriously.

5. Sharing of Learning and feedback: given the nature of many abstract concepts, the instructor can better perceive if he or she is getting the message across when the students feedback those concepts in their own frames of reference. Also, those representations may be more relevant for understanding by other students than the ones the instructor was using to introduce the conference. This is a form of the Montessori effect.

6. Require participation: students on the quality and timeliness of their contributions (not just for quantity, or going through the motions).

The foundation for being able to handle a class is certain features in the design of the group communications technology and the interface to the system. I will compare Webboard features with the features used in the original and point out the improvements needed in most current commercial systems to make the task easier.
4. System Approach

The Knowledge Management in Managerial Accounting Using Webboard was located at http://dararat.ob.tc/ as shown in Fig. 1. The Knowledge Management in Managerial Accounting Using Webboard is easy to use and development, everyone can do it by automatic program or package program. At present, Internet technology is important tool for develop the knowledge management. Webboard is one of popular tool for manage knowledge management because it free and easy. Thuse, researchers develop the webboard for student learning activities and KM. The Knowledge Management in Managerial Accounting Using Webboard shows the content of a KM so that students can search or select the preferred ones to read and study it. In addition, the students can upload the additional knowledge in text and .jpg formats by themselves. As shown in Fig. 2 and 3.

Fig. 2 Main page of Knowledge Management in Managerial Accounting Using Webboard.

Fig. 3 activities page of Knowledge Management in Managerial Accounting Using Webboard.

5. Experimental Results

An initial study was conducted at the Rajamangala University of Technology Rattanakosin. The hypothesis of this study was defined as following: 1) to develop the webboard for student learning activities and KM, 2) to compare the learning achievement of the managerial accounting and 3) to study the satisfaction of the webboard for student learning activities and KM. The samples group of this study was 115 accounting students from department of accounting, Rajamangala University of Technology Rattanakosin. The sample was obtained by using the simple random sampling method and used one-group pretest / posttest evaluation design. The result of one-group pretest / posttest evaluation show that score of posttest higher that pretest. This can be concluded that the developed system can be utilized for this course.

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>(\bar{x})</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test-Pre</td>
<td>115</td>
<td>22.37</td>
<td>1.99</td>
</tr>
<tr>
<td>Test-Post</td>
<td>115</td>
<td>48.08</td>
<td>1.56</td>
</tr>
</tbody>
</table>

The data were collected by using questionnaires about the satisfaction of learning environment of the Knowledge Management in Managerial Accounting Using Webboard. Research methods were applied to collect quantitative data using questionnaires. The data were analyzed using basic statistical tools, frequency, mean (\(\bar{x}\)), and standard deviation (S.D.). The levels of agreement from respondents were as follows:

Average Score
- 4.50 – 5.00 means strongly agree
- 3.50 – 4.49 means agree
- 2.50 – 3.49 means slightly agree
- 1.50 – 2.49 means disagree
- 1.00 – 1.49 means strongly disagree

<table>
<thead>
<tr>
<th>Details</th>
<th>(\bar{x})</th>
<th>S.D.</th>
<th>Illustrate</th>
</tr>
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<tbody>
<tr>
<td>Usability criteria</td>
<td>4.81</td>
<td>0.80</td>
<td>Definitely agree</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>4.82</td>
<td>0.79</td>
<td>Definitely agree</td>
</tr>
<tr>
<td>Efficiency</td>
<td>4.67</td>
<td>0.82</td>
<td>Definitely agree</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>4.65</td>
<td>0.78</td>
<td>Definitely agree</td>
</tr>
<tr>
<td>Total</td>
<td>4.74</td>
<td>0.80</td>
<td>Definitely agree</td>
</tr>
</tbody>
</table>

The overall quality of the system was determined against usability criteria, effectiveness, efficiency, and satisfaction following ISO 9241-11 (1998) [6]. The satisfaction of the Knowledge Management in Managerial Accounting Using Webboard was also conducted to identify a way of evaluating the quality of users. The level of satisfaction was determined through four categories, namely usability criteria, effectiveness, efficiency, and satisfaction. These showed means of 4.81 (S.D. = 0.80), 4.82 (S.D. = 0.79), 4.67 (S.D. = 0.82), and 4.65 (S.D. = 0.78), respectively (table 2). The
overall quality of the system design was estimated as very good, and the degree of clarity of system was rated higher than target levels.

Table 3 the satisfaction of learning environment of the knowledge management in managerial accounting using webboard.

<table>
<thead>
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<th>Details</th>
<th>Illustrate</th>
<th>S.D.</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information organization and retrieval</td>
<td>Definitely agree</td>
<td>0.67</td>
<td>4.20</td>
</tr>
<tr>
<td>Synchronization of the class as a whole</td>
<td>Strongly agree</td>
<td>0.81</td>
<td>3.86</td>
</tr>
<tr>
<td>Coordination, Collaboration, and Socializing among the members</td>
<td>Strongly agree</td>
<td>0.92</td>
<td>3.86</td>
</tr>
<tr>
<td>Sharing of knowledge</td>
<td>Definitely agree</td>
<td>0.88</td>
<td>4.71</td>
</tr>
<tr>
<td>Sharing of Learning and feedback</td>
<td>Definitely agree</td>
<td>0.67</td>
<td>4.65</td>
</tr>
<tr>
<td>Require participation</td>
<td>Strongly agree</td>
<td>0.80</td>
<td>3.87</td>
</tr>
<tr>
<td>Total</td>
<td>Definitely agree</td>
<td>0.79</td>
<td>4.26</td>
</tr>
</tbody>
</table>

The overall satisfaction of the learning environment was also conducted to identify a way of evaluating the quality of users. The level of satisfaction was determined through six categories: Information organization and retrieval, Synchronization of the class as a whole, Coordination Collaboration and Socializing among the members, Sharing of knowledge, Sharing of Learning and feedback, and require participation. These showed means of 4.20 (S.D. = 0.67), 3.86 (S.D. = 0.81), 3.86 (S.D. = 0.92), 4.71 (S.D. = 0.88), 4.65 (S.D. = 0.67), and 3.87 (S.D. = 0.80), respectively (Table 4). The overall quality of the system design was estimated as good, and the degree of clarity of system was rated higher than target levels.

6. Conclusion

The Knowledge Management in Managerial Accounting Using Webboard is a premium-modeling tool. This Knowledge Management in Managerial Accounting Using Webboard was able to produce high quality and complex system and gave students good practice information. It has also built-in computer based that handles all elements of the constructed scene and contain user database information. As we have seen in this paper, it has built-in objects and helpers, which used to alone or combined with one another, create the necessary perceptions of interactions. Thus, we can conclude that Knowledge Management in Managerial Accounting Using Webboard presents an excellent environment for learning, which can be produce knowledge to learner.

7. Acknowledgment

This work has been done exceptional thanks to committee of Rajamangala University of Technology Rattanakosin. Without their guidance and support, this study would not have taken its current form, nor would it have come to completion. Foremost, I thank Assoc.Prof. Dr. Surachai Suksakulchai for providing a great research opportunity. He has gone beyond what an advisor should do, and I am extremely grateful for all his help. I would also like to thank the people in the Faculty of Information Technology for their support. And thanks also to the Dr. Settachai Chaisanit for making some useful comments on both the concept of the evolutionary approach and a draft of the paper.

8. References


