

Development of the International Conference Management System

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Abstract

This study aimed to develop an international academic conference management system and to study the user satisfaction towards the international academic conference management system of the Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University. The samples of this study were 132 users obtained from a calculation using the formula of Krejcie and Morgan (1970) and were selected by simple random sampling method. The questionnaires were used to collect data. The data from the questionnaires were analyzed quantitatively for descriptive statistics, such as percentage, mean (\bar{x}), and standard deviation (S.D.). The findings revealed that the designed system was considered highly effective and was assessed in detail across five dimensions—1) function requirement, 2) functionality, 3) usability, 4) performance, and 5) data security—the system's effectiveness was scored as extremely high in all categories, with an average score of 5.00. Moreover, the top three overall contentments of the system in which the highest average score were the user satisfaction evaluation ($\bar{x} = 4.56$, S.D. = 0.67), the completeness of academic conference information ($\bar{x} = 4.55$, S.D. = 0.64), and the system's capacity to ensure accuracy at all times ($\bar{x} = 4.54$, S.D. = 0.67). In contrast, the system's simplicity and flexibility were at the lowest satisfaction score ($\bar{x} = 4.48$, S.D. = 0.69).

Keywords: Development, International Conference, Management System

1. Introduction

At present, information technology is important in the operations of organizations in all sectors. Organizations with effective information technology management and data storage can process and produce results in a format suitable for planning and decision-making. Therefore, it is crucial to develop information systems that can collect and process data in various formats, thereby enhancing the efficiency and effectiveness of future operations within the organization. Organizing national and international research conferences can help support the presentation of research results by students as part of their graduation, as well as researchers. (Nichakarn Phetpankan, 2023). The 21st century is considered the information and communication technology era. There has been a change in the world in many ways, both economically and socially, leading to adaptation in order to be able to compete among globalization. Every country around the world is moving towards a new trend of change called Knowledge Society and Knowledge-Based Economy. That must give importance to the use of knowledge and innovation as a factor in the development and production rather than the use of capital and the advancement of technology. These make information and knowledge

which constitutes a „information“ that can flow easily, quickly and can be widely applied from the individual level up to the industrial organization level, social sector as well as at the national and international levels until the state of „without prominence“. (Rawewan Khankham, 2019). Various higher education institutions organize academic conferences every year and use information technology systems to assist in the operations and management of conferences, such as Open Conf and Easy Chair. The Easy Chair system is an online software that is easy to use and widely used, but it has limitations: it cannot support the adjustment of complex data or manage data details to meet user needs. If you want to use all the additional functions, you have to pay for the licensed software (Easy Chair, 2021). For many years, Suan Sunandha Rajabhat University's Faculty of Humanities and Social Sciences has organized a national academic conference. International organizers have organized it in recent years to promote and support lecturers, researchers, scholars, educators, and those interested in exchanging and learning from research experiences. This has the potential to foster the expansion of networks across various academic fields in the future. For instance, the steps involved in organizing an academic conference include public relations, registration, sending articles from authors for consideration, paying the registration fee, notifying the results of the consideration, checking the receipt, and so on (Noimanee & Limpiyakom, 2009). The old method of organizing an academic conference involved manual management, storing data in documents and on computers or electronic files. From the aforementioned work steps, it resulted in slow work, taking a long time to manage data, processing or data being incorrect, difficult to search, or not being able to summarize the report immediately. In addition, there were a large number of article submitters who could not follow up on the results or receive news and information related to the academic conference. This led to dissatisfaction with the academic conference's organization.

From the problems mentioned above, the researcher sees the concept and importance of applying technology to develop an academic conference management system. As a result, the researcher has designed and developed an information system in the form of a website to help academic conference management be more efficient, solve problems, and facilitate all parties involved. It also has rapid and accurate processing.

1.1 Research Objective

1. Create an international conference management system for Suan Sunandha Rajabhat University's Faculty of Humanities and Social Sciences.
2. Study user satisfaction with the International Conference Management System of the Faculty of Humanities and Social Sciences at Suan Sunandha Rajabhat University.

2. Methodology

1. Population and Sample

The population consisted of 200 users of the international conference management system at Suan Sunandha Rajabhat University's Faculty of Humanities and Social Sciences.

Simple random sampling from Krejcie and Morgan's sample table (1970) produced the sample, which included 132 system users and respondents to the satisfaction questionnaire.

2. Methods of study

Instruments used in research and quality assessment of instruments: efficiency assessment form of the international conference management system of the Faculty of

Humanities and Social Sciences, Suan Sunandha Rajabhat University, which is a 5-level rating scale with 5 dimensions and a total of 25 items, with a consistency index of 0.67-1.00

Satisfaction questionnaire of the international conference management system of the Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University, which is a 5 level rating scale with 10 items.

3. Collection of data

1) The researcher independently collected the questionnaire data, distributed 132 sets of questionnaires, and provided a clear explanation of the research purpose and the questionnaires.

2) The questionnaires that were returned were subsequently evaluated, recorded, classified, and analyzed to determine their completeness.

4. Examination of data

1) The data was analyzed by the researcher using a statistical software program and presented in a table format with explanations, including the mean (\bar{X}). The standard deviation (SD) was also included.

2) The surveyed satisfaction levels were discussed. Descriptive statistics were used to analyze the data and the results were presented in a tabular form. (Chumni Ninaroon, 2023)

3. Results

The researcher carried out a research and development study on the management system for organizing national and international academic conferences at the Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University, following the specified development steps in sequence. The following presentation summarizes the research results:

System performance results evaluated by experts Three experts carried out the system performance evaluation and adopted a five-level evaluation model. Table 1 summarizes the evaluation results.

Table 1: Results of System Performance Evaluation by Experts

N=3

Evaluation Criteria	Mean (\bar{X})	Opinion Level
1. Accuracy of Function Requirement	5.00	Highest
2. Ability to Perform as Specified (Function)	5.00	Highest
3. Ease of Use (Usability)	5.00	Highest
4. Efficiency (Performance)	5.00	Highest
5. Data Security (Security)	5.00	Highest
Overall	5.00	Highest

Table 1 revealed that the developed system's efficiency achieved the highest overall efficiency assessment criteria. Considering each aspect, it was found that all 5 aspects, namely

1) function requirement, 2) functionality, 3) usability, 4) performance, and 5) security, had the highest system efficiency, with an average score of 5.00.

Table 2: Results of System Satisfaction Evaluation by Users

N=132

Evaluation Criteria	\bar{x}	S.D.	Opinion Level
1. Overall ease of use across system components	4.56	0.67	Highest
2. Data available for comprehensive meeting reports	4.55	0.64	Highest
3. Ability to verify data quickly and efficiently	4.54	0.67	Highest
4. Importance of the homepage for system usage	4.54	0.63	Highest
5. Fast performance when accessing the system	4.53	0.71	Highest
6. The system displays error messages accurately and clearly	4.53	0.70	Highest
7. The system shows necessary notifications and suggestions to users appropriately	4.52	0.69	Highest
8. The menu (interface) is easy to use	4.52	0.67	Highest
9. The presentation of data is organized, with text and images in standard formats	4.51	0.67	Highest
10. The system is lightweight and easy to operate	4.48	0.69	High
Overall	4.53	0.02	Highest

Table 2 The results of the system satisfaction evaluation by users indicate that overall satisfaction is at its highest level. When considering individual aspects, the top three with the highest average scores are as follows:

1. With an average score of 4.56 and a standard deviation of 0.67, the overall ease of use across system components receives the highest rating.
2. We also rate the availability of comprehensive data for academic meetings at the highest level, with an average score of 4.55 and a standard deviation of 0.64.
3. The system’s accuracy verification at any time receives the highest rating, with an average score of 4.54 and a standard deviation of 0.67. The system’s ease of use and flexibility receive the lowest satisfaction rating, with an average score of 4.48 and a standard deviation of 0.69.

4. Discussion

This research, which aimed to develop the international conference management system of the Faculty of Humanities and Social Sciences at Suan Sunandha Rajabhat University, gathered data from users of both the national and international conference management systems. The research results can be used in routine work, such as 1) increasing

efficiency in conference management: the developed system can help make conference management more systematic and reduce the complexity of data management, such as participant registration, research submission, and participant coordination. 2) analyzing and improving the conference organization process: the data collected in the system can be analyzed to improve the future organization process, making the conference smoother and more efficient. 3) data and document management: the developed system can help store and manage documents related to conferences, such as research articles, participant lists, and performance evaluation data, which helps reduce the burden of paperwork in routine work. 4) Decision support: the data collected in the system can be used to support executives' decision-making in planning and improving the future conference organization process. 5) Personnel skills development: using a modern system for conference management can help personnel in the organization develop more efficient technology and management skills.

5. Conclusion

The Faculty of Humanities and Social Sciences at Suan Sunandha Rajabhat University has studied and developed the National and International Conference Management System.

1. The National Conference Management System of the Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University, has proven to enhance the efficiency of national conference management. It organizes document storage into a database system, resolves communication issues, facilitates all involved parties, reduces duplication of tasks, and shortens work processes. Additionally, it allows for quick access to summary reports, ensuring data accuracy. The system involves two main users: system users and system administrators. Five modules comprise the information system: 1) Member Data Management Module, 2) Article Submission Management Module, 3) Registration Fee Management Module, 4) News and Announcements Module, and 5) Report Module. Experts have fully functionalized the system and rated it at the highest level, with an average score of 5.00.

2. The system satisfaction evaluation by users found that they were highly satisfied with the system overall, with an average score of 4.53 and a standard deviation of 0.67.

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