

Optimization and Evaluation Online Registration System Used Utility Approach (Case Study of Implementation Online Registration in Jakarta, South Korea and Taiwan)

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Abstract

There are so many applications that develop by many Universities especially in Universitas Terbuka in Indonesia, from simplicity of access, facilities and provide for users-oriented in tutorial, registration and examination. Mostly it helps students in access many facilities and services for their academic life. This paper try to reveal the online registration in semester year 2012.2 and 2013.1, it is more focused on the administrative activities of the online registration from students in Jakarta, South Korea and Taiwan. Optimization and evaluation of information systems can be analyzed based on effective and efficient aspects. The evaluation of the quality in the system such as the use of the system, reliability of the system, quantity of access time, quantity of down-time, and so on. The effectiveness factor lies on information systems in terms of quality of the system, it is not expect from system that will change and easy to use. Evaluate a system can be done with the utility system approach. This approach emphasizes the study of the system by its users to measure the implementation of the system, by reviewing the use of six elements; *possession, form, place, time, actualization, and goals*. Based on this analysis, online registration which implemented in Open University in Indonesia that used in Jakarta, South Korea and Taiwan have some differences, online registration site was created with the specific and different needs, so that personal information can be stored with the students achieve and easy to access.

Key Words: Application, Online Registration, Open University

Introduction

The internet technology surely has a positive impact in all parts, not only in the world of education. Internet technology is now greatly developed education and can bring the world into the age of distance education in many ways especially in Indonesia. Various applications in common internet technologies developed include: consultation forums, question and answer forums, virtual discussion forums, virtual reading room, video conferencing, purchase and distribution of teaching materials, examination and online registration.

The use of internet technology allows various forms of teaching methods and learning tools become easier to be evolve and develop, the limits of which in the past may hinder people to obtain information and knowledge is lost and is now unlimited. The use of information systems in education, especially in universities has become a liability in the running academic activities particularly when the registration, the development of information systems can be link between educational institutions with consumers such as students, students with tutors, tutors with educational institutions as well as the device so that everyone connected.

There are so many implementation of the information system which developed by universities, from easiness of access, facilities and provided users in order to facilitate students in accessing many facilities and services that are available, many universities built information systems for education services, but in reality the use of the information system is not effective and efficient, it also create another problems that interfere activities and which get impact for the administration and services. These factors will be assess to evaluate usefulness and weaknesses in order to improve services and beneficial, so easiness of access and availability of systems that have not been appropriate to meet the needs of customers in this case are students, it is more focused on the administrative activities of the registration.

Optimization and evaluation of information systems can be analyzed on the efficiency and effective factors. The evaluation of the quality of the system such as the empowerment of the system, reliability of the system, the amount of access time, the amount of time down-time. The effectiveness factor emphasis on information systems in terms of quality of the system, evaluate a system can be dome use the utility system approach. This approach emphasizes the study on the utilization of the system by its users (user) as measure of the success of the implementation of the system, by reviewing the use of the six sides of the possession, form, place, time, actualization, and goals.

Basically, the difficulty of students in Universitas Terbuka in Indonesia, both in Jakarta and outside Indonesia are when the time and deadline of registration, this difficulties come because the deadline for registration is very short and fast from the announcement of the results of test scores, most of students has limited access and activities because they had to work and did not leave their daily activities,

The geographic location which really far from activities to the regional office of Universitas Terbuka and also information access is one of barriers, online registration is really give a big help to reduce the problem. The online registration system that already applied in semester 2013.1 can be evaluate through utility approach, this things to obtain a solution in evaluating the results and implementation of information systems for the registration of students in Jakarta, South Korea and Taiwan. The reason of this paper why the writer chose Jakarta, Taiwan and South Korea because of online registration at 2013.1 registration period with their application, The results can then be applied to evaluate information system service contained in the Open University in the determination of policy in the future, it helps Open University facilities and services better.

Optimization and Evaluation Online Registration System

Registration is an activity which records the student's data in their academic progress. In institution or organization, the administration section is very important and very essence, if an institutions or organizations that having problems in its administration will be useless and can not run very well, because the data that will be use can not be found even the important archive of institution or organization. Universitas Terbuka currently has an audit of ISO team to maintain quality, national accreditation, and also ICDE internal team that be able to keep the administration well documented.

Basically administration can be divided into two terms, namely:

1. Administration comes from the word of Administratie (Dutch) which includes: notes, correspondence, book-keeping, typing, agenda and so the technical administration (Clerical Work). This makes administration a small part of the administration of the activities that will be studied.
2. Administration comes from Administration (English), the meaning or definition of the administration in the broad sense According to Leonard D. White, in his book: Introduction to the study of Public Administration, provides the following definition: "Administration is a process common to all group, public or private, civil or military, large scale or small scale ... etc". The administration is a process that is essentially present in all business groups, private or state, civil or military, big business or small ... and so on, before the digital era, the definition of registration is still very conventional and simple, but the development can be defined as the activities of the service area and facilitate with recording data for its business in order to reach the goals.

The series of activities are evaluating. Evaluation is part of the flow system in an activity such as planning, organization, implementation, monitoring and evaluation. The step of evaluating is located at the end of the process, therefore evaluation can determine the success of an activity, and then it will evaluate the entire condition of the design, implementation and results.

Evaluation includes measuring and assessing in making another decision. The relationship between measurement and assessment are really connected. Measure is essentially comparing something with or on the basis of size or specific criteria (meter, kilogram, dose, etc.), quantitative measurements. Assessment means evaluate something, while rate means take a decision on something that is based on quality. This is in line with what is proposed by Arikunto (2009: 3) that the measure is, comparing something with a size of (quantitative), the judge is making a decision about something bad with good size (qualitative), and the second step includes the evaluation of the above.

Objectives and Evaluation Functions

Any activities should have a purpose as well as evaluation. According Arikunto (2002: 13), there are two purposes of evaluation, they are general purpose and special purpose. The general objective is directed to the program as a whole, while the special purpose is more focused on the individual components. Crawford (2000: 30) notes that the purpose and or function evaluations are:

1. Determine whether the objectives set have been achieved in activity.
2. Provide objectivity observation of the behavior of the results.
3. Identify the capabilities and determine eligibility.
4. Provide feedback for the activities performed.

Basically the ultimate goal of evaluation is to provide material consideration to determine or make specific policy, which begins with a systematic process of data collection. In general, the aims of evaluation and needs can affect a program or activities. There are several common approaches to evaluate the sites:

1. The first approach is objective-oriented approach.
The main on this approach only focused on the purpose of the program / project and how far the destination is reached. This approach requires intensive contact with the program managers / project.
2. The second approach is a three-dimensional cube or Hammond's evaluation approach.
Hammond approach to three-dimensional view of the instruction (execution characteristics, content, topics, methods, facilities, and organization of the program / project), institution (individual characteristics of the participants, instructors, administration of the school / college / organization), and a behavioral objective (purpose of the program was alone, according to Bloom's taxonomy, including cognitive objectives, affective and psychomotor)
3. The third approach is a management-oriented approach.
The focus of this approach is a system (CIPP model: context-input-proses-product). Because of this approach see the program / project as a system so that if the program objectives are not achieved can be seen in the parts need to be improved.
4. The fourth approach is goal-free evaluation.
Unlike the above three approaches, this approach does not focus on the objectives or implementation of programs / projects, but rather focuses on the side effects, not to the goal of implementing programs / projects implemented. Evaluation is usually carried out by an external evaluator.
5. The fifth approach is consumer-oriented approach.
In this approach is the use of the material is considered as software, books, and syllabus. It seems to approach customer satisfaction in marketing science, this approach is used to assess whether the material according to its users, or whether necessary and essential for program / project. It also evaluated the material in continuation and cost effective.
6. The sixth approach is expertise-oriented approach.
In this approach, the evaluation is formal or informal, in the sense that the schedule is specified or not specified, assessment standards published or unpublished. The evaluation process can be done by individuals or groups. This approach is the oldest approach in which the evaluator is subjectively assesses the usefulness of a program / project, as it is called wiki professional judgment.
7. Adversary approach is the seventh-oriented approach.
In this approach, there are two parties, each evaluator shows good and bad sides, in addition there is a jury that determines where the argument evaluator received. To implement this approach, the evaluator should be impartial, minimize individual bias and maintain a balanced view.
8. The last approach is naturalistic and participatory approach.
This approach is a tool to evaluate with stakeholders. The results of this evaluation are various, very descriptive and inductive. This evaluation uses a variety of data from various sources and there is no standard evaluation plan. The weakness of this approach is the evaluation of the results depending on who is deciding (Salehudin, 2009: 5-7).

Various approaches to evaluate an activity can be applied to obtain effectiveness and efficiency of these activities such as for developer or administrator, or the user externally. The forms of evaluation approaches that already exist should be developed to improve users' satisfaction as the primary goal of a program can be realized and achieved.

Evaluation is an important part of the quality control management system. There is a stage in the evaluation process measurement and assessment. Web site is an application contained in internet technology. So we can conclude the evaluation web site and the facility of the act of measuring the value of a web site based on certain criteria or standards to determine the quality / quality of the web site. It is important to ensure that the correct information is obtained and comes from a trusted source, if the information used is not correct, the information that come to students will be bias.

Kumar Jha (2009) states that the web can be judged from the 5 quality indicators covering aspects of functionality (functionality) in accordance with the purpose, design (design) is interesting, website content writing (content) that meet the needs of visitors, web authenticity (originality) which shows a typical product of a work that is not duplicative of other web, as well as the professionalism and effectiveness (professionalism and effectiveness).

Based on the five requirements, which involves managing principle is the need for compliance professionals. Managers need to have the knowledge that continues to evolve through the process of learning; the experience continues to be developed in the process of repair work, and skills in management and information technology.

Management Centre International Limited (MCIL) (2010), argues that the most important first impression of the web must satisfy (first impressions) are good, ease of navigation (navigation), the quality of the content (content), web attractors (attractors) or look good, easy to search or find people (find-ability), establish contact with members of the community (making contact), in accordance with the various search technology system or browser compatibility (browser compatibility), increasing knowledge about the user (knowledge of users), to understand the level of user satisfaction (user satisfaction) .

Evaluation of a website can also be done by evaluating the interface is the bridge that brings site users with information, which is known as interoperability testing or usability testing. Kate Lawrance (2008) provides a definition of usability testing or interoperability testing as follows, "usability testing has traditionally meant testing for efficiency, ease of learning, and the ability to remember how to perform interactive tasks without difficulty or errors" (interoperability testing is to measure the efficiency of , easy to learn, and the ability to remember how to interact without difficulty or error).

Evaluation Online Registration Site

The evaluation of online registration in Jakarta, Taiwan and South Korea has different characterization, each criterion has invented something, in this case also has site criteria. The criteria for a good site according to Suyanto (2007: 61-69), can be seen from:

a. Usability

Usability is a user experience in interacting with applications or websites until users can operate it easily and quickly. To achieve the ideal level of usability, a site must meet the following 5 criteria:

- Easy to learn.

Setting the most important content at the top of the page, it helps visitors can find it quickly.

Online registration in Jakarta has put it and places it on the top, several important accesses that students can find would be seen for Taiwan students, for online registration's site in Korea, they make a simple one, which can be classified for old and new students.

-Efficient in use.

By providing links only as needed so that visitors can reach the required information quickly and easily. Online registration for Taiwan and Korea provide several links such as social media in Facebook and twitter, so students can get information not only from the site, but also from social media.

- Easy to remember.

With not many changes are striking on the site, especially in navigation. Jakarta and Taiwan online registration have simple names to access, they also have clear navigation for new students who join the academic life.

- Low error rate.

Most of the online registration used in Jakarta, Taiwan and South Korea retain very well, they do not have a link that does not work (broken link) or the page is still under construction (under construction), since students access it, there is never any complaint or error.

- User satisfaction.

This must be considered as related to the continuity of the website. A website should be easy to use by the user. In the sense that the user should be able to find what they are looking for, download it quickly, know when they are done, and can easily notify the site or content that they find the other user. This is also a promotion for the site, most students in Jakarta, Taiwan and Korea are really satisfied and gave good responses to the site.

b. Navigation system

Navigational aspects related to the manner or mechanism of transfer from one site to another (menu system) in a website system. Ease of navigating the website navigation system involves the whole website and the website interface design. Navigation helps users find the easy way when exploring a web site to be able to find what they need quickly. Navigation can be displayed in a variety of media such as text, image or animation. Some navigation systems that come from online registration sites in Jakarta, Taiwan and Korea:

- Easy to learn
- Consistent
- Allows feedback
- It comes in the context of
- Provide alternative
- Requires calculation of time and action
- Provides a clear visual message
- Using clearly labeled and easy to understand
- Support the goals and user behavior

Most online registration sites for Jakarta, Taiwan and Korea are aware with good navigation systems, they are really simple and easy to learn, for Jakarta online registration, it is really connected with e-mail, most of the students should register their e-mail for taking their information and administration, while Taiwan and Korea students only used their students number. There are also several alternatives that administrators made to bring information for students such as from social media, they remind students from groups in Facebook and twitter.

Some online registration make good navigation, several navigation that administrator made:

- Plan correctly.
- Group the navigation link and adjust as needed
- Making navigation view different from other views in Jakarta, Taiwan and Korea.
- Navigation brief, precise and clear.
- Navigation that allows user feedback.
- No navigation is non functional (broken links, both internal and external) and no content navigation.
- Maintain consistency. Positioning and navigation areas should remain navigation structure should be consistent with the structure of the content, which is sorted by the logic of visitors. Such as the placement of the same on every page, the same color and easy to see.

Online registration systems has a good plan, they evaluate and asks students to give comment and suggestion. Several navigation systems in three countries have different places and view, they maintain it everyday and give a very good color for every page and attractive strategy.

c. Graphic Design (Visual Design)

Good design at least has a good composition and color consistent, consistent graph layout, text is easy to read, use of graphics that reinforce the text, the use of animation in the right place, the contents of text animations that emphasize content, and overall forming a harmonious pattern, Jakarta and Taiwan have a very nice design, while Korea online registration system has simple design. Several design that already implemented in Jakarta, Taiwan and Korea online registration:

- The visual design creates clarity usability, according to the purpose of the site, and the design can be communicate, support and improve the site visually.
- Professional, easy and original
- Clean and simple.
- Use the proper format in online registration site.

d. Contents

Content the most important part of a website; it should be interesting, relevant, and appropriate for the students as the target site. The website should have content archives of old data and reliable with updated information. Designed for objectivity and accuracy of the information contained with compilation of data and strengthened with the opinion of the administrators, some online registration site give list of references from sources. Synchronize between audio and visual like in Jakarta online registration, while in Taiwan registration site they have video. Some good content that comes from online registration site in Jakarta, Taiwan and Korea:

- Identify the target, writing with their style and adjust to its contents.
- Always present and update.
- policy states clearly.
- Making posts on the site easily and quickly
- Languages (Bahasa Indonesia and English)

e. Compatibility

Website should be compatible with various devices (browser), it also provide an alternative for browsers that can not view the site. Some compatibility that comes from online registration site in Jakarta, Taiwan and Korea:

- It can be access different browsers. With the consideration that the browser used to different users, different versions, or different settings, and others, most of online registration site in Jakarta, Taiwan and Korea can be access from Internet explorer, Mozilla Firefox and Google Chrome.
- The website is working in the PC platform.
- visitors can easily download it

f. Accessibility

The web page should be used by everyone, regardless of age and physical condition. Infrastructure constraints must also be considered, such as slow Internet access, computer specs, browser use, and others, which can affect an individual's access, including a variety of new technologies such as tablet and cell phones. Web should also be accessible through the technology and integrated with other gadget, most of online registration already prepares that, they can be access easily through device.

g. Interactivity

Interactivity is the things that engage users as a web site. Base of interactivity are hyperlinks (links) and feed back mechanism. Hyperlinks are used to take visitors to the news source, the topic further, related topics, or others. Most of online registration systems in Jakarta, Taiwan and Korea have interactivity between users and administrators; they can give criticism, comment, question, poll or survey. Some of users could inform the administrator if there are errors on the site such as missing links or other errors. Users can also provide critiques / suggestions for the improvement of the site.

Conclusion

One model evaluation system that can be used to evaluate the site on the online registration form approach is the utility system. This approach reviewing implementation of the system from the viewpoint of system utilization based on six things:

1. Possession utility tries to answer who should receive the output of the system. It is effect on the ownership aspect of the system information. If the system output not clear which party \ need, then this may be an indication that the system has been built without regard to the needs of users of the system, Korea is the one who has a very good possession utility for online registration system.
2. Goal utility attempts to answer why the information system is needed, with asking whether the output system has any significant role for the organization in achieve its objectives such as in Jakarta online registration system who has the complete information needed.
3. Place utility responded scope of information distribution, in other words, to evaluate how much information can be dispersed in the environment or the user organization information.
4. Form utility to answer questions such as what type of output that is distributed to decision makers. This question is used to evaluate whether the output that have been generated are presented in a form useful to the users of the system.

5. Time utility to answer the question of when the information will be sent, or as to whether the system already produces output that is right at the time desired by users systems.

6. Utility actualization answer how information is introduced and used by decision makers

Based on 6 things, most of online registration system in Jakarta, Taiwan and Korea have fulfill 6 criteria, another 7 things that complete the online registration system such as usability, navigation system, graphic design (visual design), contents, compatibility, accessibility and interactivity, based on evaluation and feedback, it really helps student to register themselves registration in semester year 2012.2 and 2013.1

Site's Page of Online Registration

Online Registration for Jakarta's student



Picture 1. Online registration in Universitas Terbuka, Jakarta



Picture 2. Application and information for online registration

Online Registration for Taiwan student

Formulir Daftar Ulang Mahasiswa Lama – Online
Universitas Terbuka

Isilah formulir daftar ulang ini dengan data yang benar

NIM

Tulis NIM anda dengan benar

Daftar !

Universitas Terbuka Perwakilan Taiwan – Badan Pelaksana
© 2011
website: ut-taiwan.org



Picture 3. Online registration data in Taiwan

Cek Data Formulir Daftar Ulang Universitas Terbuka Taiwan

Cek dan isi formulir pendaftaran ini dengan data yang benar

Nama

Tulis nama anda

NIM (Nomor Induk Mahasiswa)

Masukkan NIM di kartu mahasiswa anda

Alamat

Tulis alamat pengiriman modul anda

Distrik

Tulis distrik anda di taiwan

Kota

Tulis kota tempat anda di taiwan

Kodepos

Tulis kodepos anda

No Telepon

Tulis telepon yang bisa dihubungi

No Handphone

Tulis handphone yang bisa dihubungi

Email

Tulis alamat email anda dengan benar

Facebook

Tulis akun Facebook anda dengan benar

Tempat Ujian

Pilih tempat ujian anda

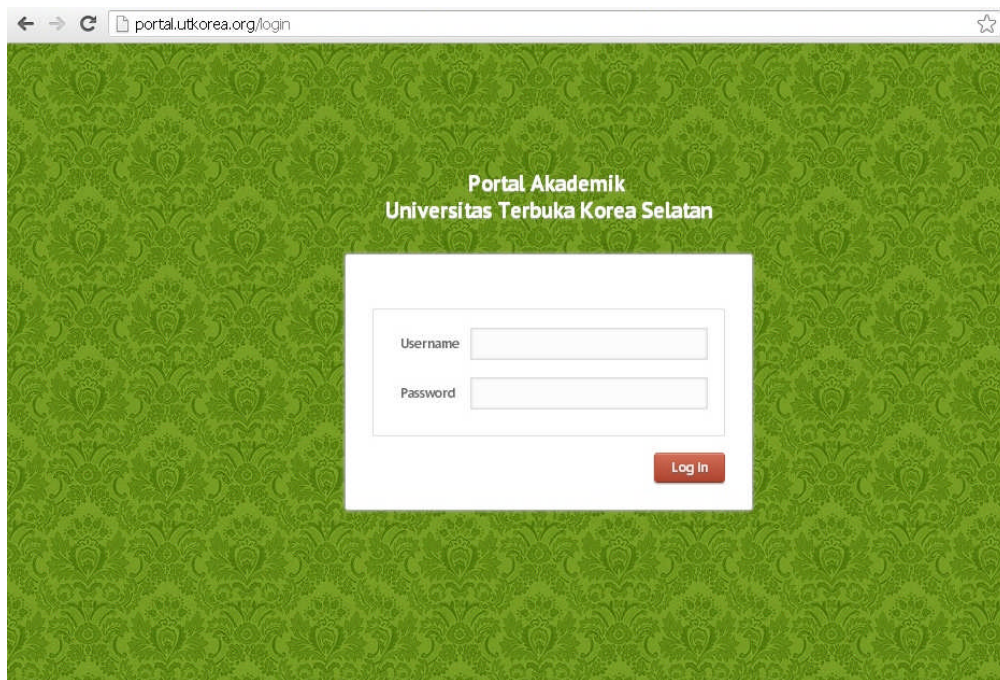
Lanjut !

Universitas Terbuka Perwakilan Taiwan – Badan Pelaksana
© 2011

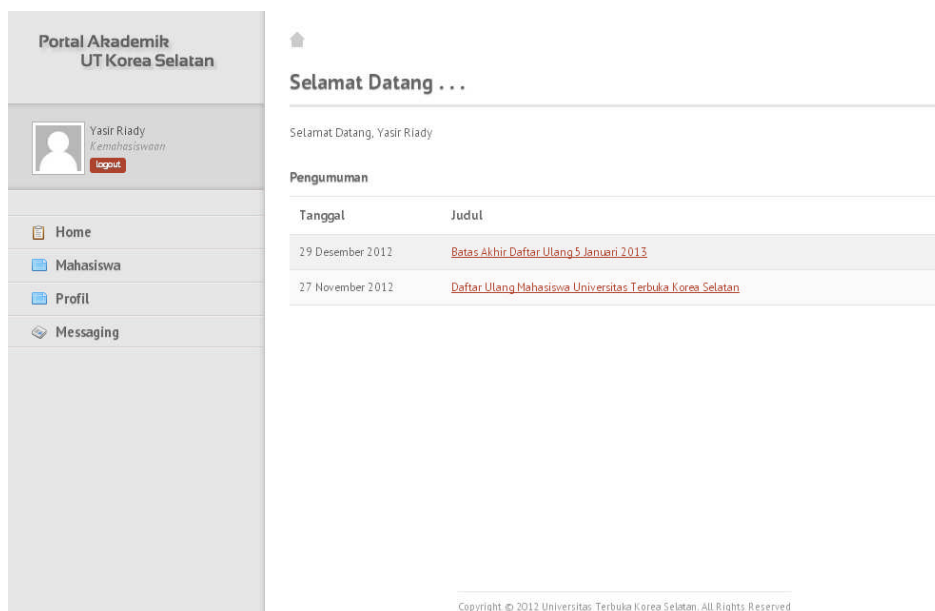


Picture 4. Form online registration in Taiwan

Online Registration for Korea students



Picture 5. Online registration for South Korea Students



Picture 6. Form online registration for Korea students

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