

THE MOTIVE OF HIGHER EDUCATION TO USE WEB AS AN EFFORT TO STRENGTHEN INSTITUTIONAL POSITION AND SUSTAINABILITY

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ABSTRACT

IT/ICT using hopefully can give a great benefit to such a competitive world of education. One of technology implementations in terms of business competition improvement and products selling is to use Web to provide information about a university/higher education institution. The parties who are related to the university such as lecturers, staffs, students, parents of students, alumni, the employee of alumni, and the government will have their roles in the using of informatics technology at university. The objectives of this study are: (1) What motives that encourage a university/higher education institution to use Web for business interest, and (2) What benefits that have already been obtained when a university/higher education institution has used Web already for the sake of educational institution development.

The sample of this research contains of 85 universities. The result shows that, the most ten motives of universities to use web are: to access global information, to promote available facilities and infrastructure, to build the image of university, to provide information for candidate students, to help competing with large universities, to give a positive image to the institution (Higher Education), to help faster communication with the users of information at universities, to facilitate the communication of information users at universities, to be closer to the users of information at universities and to broaden the spread of students. The other finding of the research show that the most three benefit of using Web at universities are: competitive strategy, an easy access to information and the satisfaction of information users at universities (student and their parents).

Keywords: Information Technology, Information Communication Technology, Website, motives and benefits

INTRODUCTION

The rapid development of science and technology to follow the development speed of today's global era demands the emerging of new paradigm of a higher education institution, especially university. The demand of informatics and communication technology utilization, the demand to have value added university product and the demand of university's role to be able to help local, national and international problem now is becoming strong. Therefore, one of the problems of university development today is how the university is able to optimize its role to answer the aforementioned global problem with the resource it has today.

There are many strategies that can be used to optimize the role of university which one of them is the performance of "University's Resources Revitalization" strategy (Soekartawi, 2005). According to Soekartawi, in order to improve the role of university,

the said university does not have to wait for having “sufficient” resources since such a role can also be performed by optimizing the resources revitalization that is available today. This thought is forwarded since there is a management of university’s role that is either not or less optimal. Consequently, the competitive superiority of such university is low. One of the solutions thereof is how to perform educational resources revitalization to have a high competitive power (competitiveness).

Such a rapid change is mostly due to the impact of new technology and innovation invention that is called Informatics Technology or Informatics Communication Technology (IT/ICT). Nowadays, any institutions that have not been touched by this kind of technology will be always left behind since the globalization acceleration is continuously improved along with the rapid progress of IT/ICT.

IT/ICT using hopefully can give a great benefit to such a competitive world of education. The university which is competitive in the competition is the one that is able to implement technology in the activity of institutional development. One of technology implementations in terms of business competition improvement and products selling is to use Web to provide information about a university/higher education institution. The parties who are related to the university such as lecturers, staffs, students, parents of students, alumni, the employee of alumni, and the government will have their roles in the using of informatics technology at university.

Internet using has been experiencing a remarkable development in business, especially at large scale companies. Since internet technology firstly invented in 1990s, its using has been spreading for it is considered to give a very great benefit to business processes.

The motive and benefit of Web in order to improve the service to the university information users and the competitive power of university in this matter becomes the writer’s point of view to be the object of this study. Referring to such a reality, the application of Web technology is one of important factors to support the success of university to improve its image before the users of educational service.

There are many universities in Indonesia that have been using Web. According to the initial survey, there are many universities in Indonesia that use Web as the facility to spread over information and shape the image of university. Therefore, this study will analyze the motive of and benefit obtained by those universities that have been applying Web for the interest of educational institution. Through this study hopefully there is a clear picture of university’s motive in using Web. This finding is very important especially in trying to provide clearer information about the basic consideration of using Web and utilizing it as the facility of competitive superiority. This study uses several universities in Indonesia as its subjects and they are those universities that have already been using Web Service and located in big cities in Indonesia.

The objectives of this study are: (1) What motives that encourage a university/higher education institution to use Web for business interest, and (2) What benefits that have already been obtained when a university/higher education institution has used Web already for the sake of educational institution development.

THEORETICAL BACKGROUND

Previous Study

A study of Web using (e-commerce) intention and its benefit have already been done by Daniel and Wilson (2002). The said study is aimed to analyze the reasons that force a company, especially that small and middle scale company, to use e-commerce for the sake of business and to know about the perception of company about the benefit it has after using e-commerce. The design of study employed by Daniel and Wilson (2002) is a survey study that involves small and middle scale companies in England which employ less than 250 workers and have used e-commerce already for business. By using a factor statistical technique, it is concluded that there are five factors identified to force those small and middle scale companies to use e-commerce. Those five factors are: to improve the efficiency of service, to maintain a good relationship with suppliers, and to attract customers, while the fourth and fifth factors are not given name since the categorization derived from them is not specific. This fourth factor consists of variables to obtain external business information, to recruit staff, and to improve internal knowledge spreading, while the fifth factor is formed by variables of customers' pressure and competitors' pressure. Factor analysis of the benefit obtained after using e-commerce among others are the benefit in terms of customers, for the sake of competition, service efficiency improvement, relationship with suppliers improvement, while the fifth factor is not given name since it is formed by online staff recruitment and internal knowledge spreading improvement.

Another pervious study has also ever been done by Herliansyah (2004) who tested the effect of motivational factors toward the behavioral intention of investors that use go public companies' websites. In the said study, he tried to see the impact of motivational factors on go public companies' websites using in terms of investors' decision making. There are three types of motivational factors that are employed, easy-for-use perception, utility perception, and informative perception of go public companies' websites.

There was also another study done previously by M. Rizal Palil (2004) in order to know about electronic commerce effect toward taxation system in Malaysia that emphasizes on tax imposition and rights to tax. This study performed by M. Rizal Palil employed 82 samples of taxation practitioner and 22 academicians. The result of study showed that tax imposition practice in electronic commerce had not been performed according to the prevailing regulation yet. Therefore, the tax earned form such an electronic commerce was not yet maximal.

This study of e-commerce using was also performed by Setyarini Santosa (2002). It is about the emerging of internet and worldwide web (www) as the base of electronic commerce development that has caused a quite complex problem for an accountant in performing his/her task. In the circle of trading that have already employed a computer network, both in its capacity as an internet and extranet, the internal control system becomes more complicated. The study then discussed about those materials that are relevant to new issues about internal control, e-commerce implication toward internal control and the opportunity of accountant.

The fifth study was performed by Oviliani Yenti Yuliana (2000) in which she took the using of internet technology in business as the subject matter. This study has proven that go public companies' websites is useful in the process of decision making for

investment. In addition, the said study also proved that a potential investor tends to use go public companies' websites for making decision.

The study performed by Luciana Spica and Lidia (2006) analyzed the motive of and benefit obtained by the company that has applied Web (e-commerce) for business. The finding of this study is very important especially in the effort to provide clearer information about the basic consideration in using e-commerce and utilizing it as the facility of competitive superiority. The study performed by Luciana Spica and Lidia (2006) used several companies that have already used e-commerce service as the object, which is directly targeted to the customers. Those companies are located in big cities in Indonesia. The samples are taken from 27 companies of service and trading which turnovers range from 10 million to 100 million. As referred to the analysis and discussion described in previous chapter then the following matters can be concluded: as referred to motive factor descriptive analysis can be concluded that the factors that ground the company to use e-commerce consist of six factors that become the highest hope of the company when it want to apply e-commerce: to access Global market as much as 56%, to be closer to the product as much as 63%, to build trademark as much as 74%, to help faster communication with the customers as much as 63% and to satisfy the customers as much as 56%. And as referred to the second analysis namely benefit factor descriptive analysis obtained by the company by means of e-commerce application consists of two factors which become the biggest benefit of company after applying e-commerce namely Customer Satisfaction as much as 74% and Competitive Superiority as much as 81%.

New Paradigm of University Development

The competitive superiority of university must be improved by revitalizing the resources owned by university. The aim of such revitalization is to enable the university to improve its competitive power as follows:

First, the revitalization is necessary in order to overcome "fund shortage" in education, research, and public service organization. This is especially for state university where part of costs always depends on the fund allocated by the government through APBN and APBD. Second, the revitalization is necessary in order to fulfill "the necessity of employing lecturer and employer". At certain universities, there are often shortages of lecturers and employers, especially when there are many lecturers who work outside their campus. Third, revitalization must be done in order to achieve "resources efficiency", such as: equipments utilization, lecturing room and practicum room utilization, lecturer utilization, collective research utilization, and administrative activity utilization.

The Role of University/Higher Education Institution in the Improvement of National Competitive Power

All activities performed by universities/higher education institution should be subject to the principles of efficiency and prioritize the quality. It is meant that the product of education can survive for such a long time (sustainable) with a reliable quality. The qualified principles of efficiency and management (Enhance Efficiency and Quality Management) is better to be well understood by the director, lecturers, and employees of an institution in order to avoid any misunderstanding about the said qualified principles of efficiency and management.

In this global era as today, it is demanded to be able to create and improve one's network with other parties who share the same vision, mission, and goals in addition to have competence in technology, especially informatics technology and also to be able to anticipate the rapid global change. This networking can be maintained by both domestic and overseas institutions. Team work and mutual cooperation will be useful, for example to create new innovation, to perform the efficiency principles, and so forth. It is very suggested to cooperate with partners both domestics and overseas (SOEKARTAWI, 1999, 2001).

The product and program of university must be widely marketed to be known by its their users. This is important since no matter how good the available product and program are, they will not be popular if they are not widely known by their users. The direct impact is nobody or less people will be interested in that university.

There are various ways to broaden "the market" of university's program and product namely by utilizing its web to give information to the people about:

1. There are many specific publications published in journals both national scientific and international scientific ones.
2. There are many lecturers who present scientific literature that is presented in various scientific forums, whether in seminars, trainings, visit lecturing or others both national and international.
3. There are other scientific books and writings that are written by the lecturers.
4. There is news about university's activities that are reported by various media both electronic and printing.
5. There are lecturers assigned at various other institutions as outsourced employees.
6. There are many books, scientific journal or other information that are produced.
7. To strengthen the website of university and always renew its content.
8. There are many students who apprentice at another institution outside the university with good achievement.

The demand of university's role as described aforementioned by Hidayat (2002), it can be understood since the university is a place where people can learn about and obtain and develop knowledge. By having this knowledge, the people can perform a research based on good way of thinking and reasoning.

RESEARCH METHODS

Sample Selection and Data Collection

The population of this study is the universities that have employed the service of Web to introduce them to the public. The participating universities distributed the questionnaires to their administration web that have been managing the university web. The survey got 85 respondent from 85 universities in Indonesia and all of the questionnaires qualified for analysis

Research Variables

The employed variables in this research are

1. The motives of university to use Web are:
 - a. To broaden the spread of students
 - b. To access global information

- c. To promote available facilities and infrastructures
 - d. To build the image of university
 - e. To give a positive image to the institution (Higher Education)
 - f. To help competing with large universities
 - g. To be closer to the users of information at universities
 - h. To help faster communication with the users of information at universities
 - i. To satisfy the users of information at universities
 - j. To provide service at anytime
 - k. To help business transaction
 - l. To provide information for candidate students
 - m. To facilitate the communication of information users at universities
 - n. To invite domestic partner to cooperate in the development of university
 - o. To invite overseas partner to cooperate in the development of university
 - p. To access information from external parties
 - q. To save cost
 - r. To improve internal communication
 - s. To help in the process of recruitment
 - t. To save the cost of recruitment
 - u. To efficient the operational process of institution
2. The benefit of using Web at Universities:
- a. The improvement of university management internal process
 - b. Efficiency and effectiveness in terms of information users at universities
 - c. The satisfaction of information users at universities (Students and their parents)
 - d. Competitive superiority
 - e. Internal communication efficiency
 - f. A positive image of university
 - g. An easy access to information.

The instrument of evaluation is developed as referred to the instrument developed by Daniel & Wilson (2002) and the research finding of Drew (2003) in a likert scale in which the indicator is developed as referred to the said instrument with the answer of scale from 1 to 5 that is adjusted with the subject of this study namely the University.

Data Analysis Technique

After the data is collected then data analysis is performed in the following stages: **Descriptive Analysis**, This analysis is performed to search for and draw a conclusion of findings that can be obtained on the field. Those collected findings are further presented in a tabulation or graphic to be easily understood and read. The descriptive analysis is explained in two things:

1. **Descriptive Analysis for Motive Factor.** This descriptive analysis for motive factor will be concluded in 10 answers that are mostly chosen by the respondents, and those 5 answers mostly chosen by the respondents will be drawn as the conclusion that those motives are the reasons of the companies to apply e-commerce in order to improve their business competitive power. Those 10 most chosen answers will be presented in a percentage shown in tabulation or graphic on which those 10 most chosen answers drawn as conclusion are those that range from scale 4 to 5 which percentage is greater than 50%.

2. **Descriptive Analysis for Benefit Factor.** This descriptive analysis for benefit factor will be concluded in 3 answers mostly chosen by the respondents, and those 3 answers mostly chosen by the respondents will be drawn as the conclusion that those benefits are the benefits obtained by the companies when they apply e-commerce for business. Those 3 most chosen answers drawn as conclusion are those that range from scale 4 to 5 which percentage is greater than 50%.

RESULTS

Descriptive Statistic

The sample used in this study shows that 25 universities (29.4%) have students those only come from Java, 18 universities (21.2%) have students those only come from outside Java, 13 universities (15.3%) have students those come from Java and outside Java, and 29 universities (43.1%) have students those come from all over Indonesia and overseas too.

The sample of this study shows that in 1996 there was only 1 university that uses website or as much as 1.2%, in 2000 there were 4 universities or as much as 4.7%, in 2001 there were 2 more universities or as much as 2.4%, in 2002 there were 8 universities or as much as 9.4%, in 2003 there were 9 universities or as much as 10.6%, in 2004 there were 14 universities or as much as 16.5% that started to use web, in 2005 there were 23 universities or as much as 27.1%, and 10 universities or as much as 11.8% started to use web in 2006. The rest of them as many as 14 universities (16.5%) does not mention when starting to use web.

The sample of this study shows that there were 83 universities (97.6%) display university's vision, mission and goals in a university's web. The other information displayed in University's Web about information of activities documentary at the gallery, information works collection, job vacancy information and scholarship for students. Table 1 shows the other information displayed in a university's web.

Internet using for institutional management at universities based on several reasons, such as there were 40 universities (47.1%) using web because all competitor universities have already used it, there were 40 universities (47.1%) using web because most of them have used it, and there were 5 universities (5.9%) using web because few of them have used it. The resources that must be prepared by a university when it going to apply web, are technician, operator, network and management support to the implementation of web using for institution. Table 2 shows descriptive statistic for the resource of university to apply Web.

Table 1.
Descriptive Statistics for Information Displayed in a University's Web

No.	Information Displayed in a University's Web	Total	Percentage (%)
1.	University's vision, mission, and goals	83	97.60
2.	The vision, mission, and goals of each department there	75	88.20
3.	The guidelines of educational organization in each department	56	65.90
4.	The curriculum of each department	45	52.90
5.	Academic administration guidelines of each department	35	41.20
6.	Financial administration guidelines of each department	28	32.90
7.	Student affairs administration guidelines of each department	34	40.00
8.	Library service at the university	58	68.20
9.	The information of facility provided by the university	80	94.10
10.	The information of both academic and non-academic activities in the university	72	84.70
11.	The information of any cooperation entered into by the university with a domestic organization	56	65.90
12.	The information of any cooperation entered into by the university with an overseas organizations	61	71.80
13.	The academic calendar of university	74	87.10
14.	Information of on-line registration	73	85.90

Table 2.
Descriptive Statistics for The Resources of University to Apply Web

No.	The Resource of University to Apply Web	Total	Percentage (%)
1.	Technician	3	3.5
2.	Operator	8	9.4
3.	Network	22	25.9
4.	Technician, Operator and Network	40	47.1
5.	Technician and Operator	1	1.2
6.	Technician and Network	5	5.9
7.	Operator and Network	6	7.1

The obstacles or difficulties faced by the university during the application of web are: lack of human resources in technology, licensing, hosting capacity, server, web designer, database, internet network, and high cost hosting. The benefits obtained by a university when applying web are wide coverage of students, to introduce the university

to the public better, strengthen its position, improve its competitive power and to get new business partners.

The cost incurred by the application of web for institutional benefit is about 5,000,000 IDR per month averagely which the lowest is 500,000 IDR per month and the highest is 5,500,000 IDR per month. From respondent survey it is shown that almost all respondents state that the cost spent by the institution is equal to the benefit they will have when using web.

The Motives and benefit of using Web at Universities

The most three benefit of using Web at universities are: competitive superiority, an easy access to information and the satisfaction of information users at universities (student and their parents). Table 3 shows descriptive statistics for the benefit of using Web at universities.

Table 3.
Descriptive Statistics for The Benefit of Using Web at Universities

No.	The Benefit of Using Web at Universities	Percentage (%)
1.	Competitive superiority	84.7
2.	An easy access to information	84.7
3.	The satisfaction of information users at universities (student and their parents)	83.5
4.	Efficiency and effectiveness in terms of information users at universities	74.1
5.	A positive image of university	74.1
6.	Internal communication efficiency	64.7
7.	The improvement of university management internal process	41.1

The most ten motives of universities to use web are: to access global information, to promote available facilities and infrastructure, to build the image of university, to provide information for candidate students, to help competing with large universities, to give a positive image to the institution (Higher Education), to help faster communication with the users of information at universities, to facilitate the communication of information users at universities, to be closer to the users of information at universities and to broaden the spread of students. Table 4 shows descriptive statistics for the motives of university to use web.

Table 4.
Descriptive Statistics for The Motives of University to Use Web

No.	The Motives of University to Use Web	Percentage (%)
1.	To access global information	87.1
2.	To promote available facilities and infrastructure	87.1
3.	To build the image of university	85.8
4.	To provide information for candidate students	85.8
5.	To help competing with large universities.	81.2
6.	To give a positive image to the institution (Higher Education)	80.0
7.	To help faster communication with the users of information at universities	77.7
8.	To facilitate the communication of information users at universities	76.5
9.	To be closer to the users of information at universities	72.9
10.	To broaden the spread of students	71.8
11.	To Invite overseas partner to cooperate in the development of university	71.7
12.	To satisfy the users of information at universities	68.3
13.	To provide service at anytime	68.2
14.	To help competing with small universities	63.6
15.	To invite domestic partner to cooperate in the development of university.	61.2
16.	To access information from external parties	60.0
17.	To efficient the operational process of institution	54.1
18.	To help business transaction	50.6
19.	To improve internal communication	43.5
20.	To save cost	31.8
21.	To help in the process of recruitment	29.4
22.	To save the cost of recruitment	28.2

CONCLUSIONS AND RECOMENDATION

The objectives of this study are: (1) What motives that encourage a university/higher education institution to use Web for business interest, and (2) What benefits that have already been obtained when a university/higher education institution has used Web already for the sake of educational institution development. The sample of this research contains of 85 universities. The result shows that, the most ten motives of universities to use web are: to access global information, to promote available facilities and infrastructure, to build the image of university, to provide information for candidate students, to help competing with large universities, to give a positive image to the institution (Higher Education), to help faster communication with the users of information at universities, to facilitate the communication of information users at universities, to be closer to the users of information at universities and to broaden the

spread of students. The other finding of the research show that the most three benefit of using Web at universities are: competitive strategy, an easy access to information and the satisfaction of information users at universities (student and their parents).

The results of the study suggest several directions for further research. Future studies may also investigates a relationship between size of university (proxy by students amount or the other variables) with the motivation and benefit of university using web. The other future studies may also investigates a relationship between the cost spent amount with the motivation and benefit of university using web.

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