

Information System In Educational Environments Management Influences Against The Student Motivation On Public Universities In Jakarta, Indonesia

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Abstract: The phenomenon of the rise of unemployment among educated scholars, particularly in urban areas, can be a serious threat to the stability of the economy, politics and security in Indonesia. The low absorption of labor among the educated scholars, indicate the educational process in college is not optimal. The quality of education in Jakarta Capital City becomes the mirror of the quality of education in Indonesia, as a reference for the educational process in other areas and a quality barometer of education in Indonesia in the eyes of the international community. The not optimally information system in educational environments management proved has an effect on student learning motivation and resulting in low quality of educated bachelor graduates in Jakarta. Increasing the effectiveness of optimally information system in educational environments management through the provision of an information collection of the physical elements maintenance and the information unit of social elements development that conducted in integrated manner is believed to strengthen the students' learning motivation. Students that have a high stimulation of learning requirement, a strong encouragement of learning energy and an increase the intensity of learning effort, there will be more enthusiasm in learning, determined to complete the task, tenacious in facing the adversity, thoroughly solve the problem, dare to show an interest, and the desire to show a talents in a creative ways. In the end, students will become more skilled, confident, and productive economically and socially.

Index Term: College Student, Educational Environments Management, Information Systems, Motivation, Physical Elements Maintenance, Public Universities, Social Elements Development.

1 INTRODUCTION

A large number of unemployed in Indonesia who come from educated scholar, be a blow to the universities management in Indonesia, considering the universities as an institutions of formal education has a vision of producing qualified scholars with high science and technology capability that is expected to become a component of the nation's competitiveness. The fact is not so, because the absorption of educated scholar in the world of work is lower than the absorption power of not a graduate. According to BPS reported by JPNN.Com the number of undergraduate unemployed in February 2013 reached 360,000 undergraduate or 5:04% from the total unemployed that reached 7.17 million people. Reinforce the data, the chart below shows the trend from the initial rise in unemployment among scholars educated in Indonesia [1]. Data regarding the trend of initial rise in unemployment among educated scholar consolidate the fact that the absorption of educated scholar in working world is getting low. The decline in the number of the absorption of scholar educated in the world of work can be caused by many factors, one of them is the low level quality of Indonesian scholars educated so that unable to meet the qualification standards required in the world of work. There are quite a lot factors that account for the low quality of the scholar educated in Indonesia, among others factor are the quality of universities as an institutions of formal education that process the quality of the students, as well as internal factors from within the students themselves.

One of the internal factors that were allegedly the most dominant influence the quality of a student is learning motivation. The survey results of pre-study conducted by researchers with the 30 college students in Jakarta from 15-19 February 2015 showed the indications of weakness in students' learning motivation. The indications are visible through the number of students who cannot complied the regulations regarding the minimum attendance of 70% in lecturing process in class and study completion time is longer than the target set by the institution. The student participation in following lecturing process also low, they are more passive and seem less enthusiastic about the learning process, as well as a number of other facts which reinforce the indications of the lack in learning motivation of college students in Jakarta. Clifford Mc.Donald in Hamalik [2], opine that motivation is the energy alteration in oneself that is characterized by the appearance of feeling and preceded with the response to presence of objective. Furthermore, Mc. Donald said in motivation, there are three interrelated elements, namely the energy alteration, the emergence of affective, and reactions to achieve the objectives. Motivation can usher someone on a fundamental alteration inside their self as a result of the alteration of energy. Energy alteration can be an encouragement for someone to do something that leads to the achievement of its objectives. Clear determination of objective becomes important, considering the objective acting as the requirement that stimulate the emergence of encouragement and effort on a person to achieve it. John W. Santrock [3] interpreted the motivation as a process that encourages, directs, and persistence in behavior, so behavior that is motivated is an energetic behavior, purposeful and long-lasting. Students who have a strong motivation to learn would not be difficult to meet the academic regulatory and the norms in campus life considering they have a clear objective to achieve. Processes and activities in learning becomes something fun

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and to be followed earnestly because it is recognized as a process to achieve the objectives. Thorndike in Uno [4] argues that learning as a process of interaction between the stimulus (which might be thought, feeling or movement) and response (which can also be thought, feeling or movement), and behavioral changes in learning can be either something concrete (can be observed), or the non-concrete (not observable). So learning itself actually can bring the learning requirement stimulation, which is an early indication of their motivation to learn. From the results of research conducted by Naibaho, Adi, Veryco, and Sugiarto [5] it concluded that the students' learning motivation can be increased if the lecturer arouse the interest of students, nurture their curiosity, using a variety of teaching strategies, expressed the expectations clearly, and provide feedback with frequent and immediately, as well as the rewards that have contingent, specific, and reliable. It means that the student motivation of learning can be stimulated by external factors themselves, in this case the factor derived from the elements of the lecturer. From the survey results, it also obtained the fact that the lack of student learning motivation caused by internal and external factors. One of the internal factors is the lack of interest to fathom a department or campuses, which they entered. This is because they were forced to enter in a department / study program or universities, which is they are not interest in. Many students who go to college are not because their own awareness, but due to pressure of various factors outside themselves, among others because of the insistence from parents, influence of friends, the demands of the working world regarding a particular expertise, etc.. Furthermore, they were said, other than internal factors above, there also external factors that influence their motivation to learn, which is a factor that comes from universities where they studied. Among them are the rules of the college and the academic services provided by educators and education personnel in the lecturer process. Students say there is a fair amount of regulatory colleges that rated rigid (inflexible) and limitations of the infrastructure of lecture in the academic administration information services also became one factor that makes the college students less enthusiastic to undergo the lecturing process, along many other things. From so many factors that indicated influence of student learning motivation, the factor of information management system in educational environments is believed to be the most dominant factor that affected college student learning motivation. Still continuation of the survey pre-study conducted by researchers interviewed a number of students at public universities in Jakarta Capital City, obtained information that says that external factors are quite dominant in influencing their motivation to learn is the lack of information about the utilization of educational infrastructure and the difficulty of obtaining information regarding the way to communicate effectively with the lecturers and administrative personnel. Kazaure and Suleiman [6] said that information has become an important element in a learning process that oriented to the achievement of educational goals. Almost all people need a fast, accurate, up to date and easy to understand information as the basis for a decision. Hall in Alandari [7] explains that the information system is a series of formal procedures in which data is grouped, processed into a useful information and then distributed to those in need.

Anunobi [8] also reinforces the opinion of Hall by describing the information system is a collection of hardware and software designed to transform data into information useful form. The information system also could be interpreted as a set of interrelated elements (integrated), which collect, store, process, and disseminate information to support decision-making and other purposes either people or organization [9]. College students need an information system that is integrated and accessible concerning the academic information, either information regarding the lecture, grades, and student affair. College students also need the facility and accuracy of information about communicating with the lecturers in the process of counseling and academic guidance, as well as information about the facility of communicating with administrative personnel related to student academic purposes. Pre-study based on interviews with some students, there are indications that the management of the public universities in Jakarta Capital City has not yet provided information about the management of the entire physical and social elements of the campus adequately, so it affects students motivation to learn. Therefore, research on the influence of information systems in educational environments management toward the student motivation to learn at public universities in Jakarta Capital City is very important to do.

2 METHODOLOGY

Research carried out on the public universities college student in Jakarta is an associative research, the research aims to clarify the relationship between variables through data analysis in order to test the hypothesis. Associative research is also conducted to determine the clarity of the phenomena that exist in the society and trying to get answers to these phenomena through direct research in the field. More precisely, this research is the causal relationships of associative research, i.e. the research to quantify the relationships between the variables or useful for analyzing how a variable affect other variables [10]. In this research, the approach used is a quantitative approach, i.e. the approach that relied on figures in the form of a score as the basic framework of analysis, where the scores obtained by the survey method. A quantitative approach is a research approach that often be prosecuted using numbers, ranging from data collection, interpretation of the data, as well as the appearance of the results [11]. This research consisted from two variables: the independent variable and the dependent variable, where the information system in educational environments management is the independent variable and the motivation to learn is the dependent variable. The variable of information system in educational environment management is a unity of data collection that is processed and disseminated into information about the management of the educational environment. Meanwhile, the variable of motivation to learn is the intensity process of the energy alteration that intensified the motive to achieve the learning objectives. Variable measurement of information system in educational environments management carried out by using 20 items statement that includes two dimensions: 1) Collection of information about the maintenance of physical elements with the indicators of the facility and accuracy of infrastructure information, the facility and accuracy of academic information, academic information up to date, and the facility and accuracy student

affairs information; 2) The unity of the social elements development information, with the indicators of disclosure regarding guidance lecturer information, the facility of lecturer consultations information, the facility of student affairs consultations information, and the convenience of administration consultation information. Object in this research is the information system in educational environments management and motivation to learn, while the subjects of the study were students on the public universities in Jakarta. The sampling technique in this research use the technique judgment sampling, i.e. sampling technique conducted with a specific purpose [12]. The samples in this research were 150 students with criteria of college student who have studied at the university at least 6 semesters. Data was collected by distributing questionnaires to 150 respondents of student. Variable measurement techniques in this study are using a Likert scale, a measure of someone agreement or disagreement against a series of statements related to beliefs or behaviors regarding a particular object [13]. Likert scale data processing is included in an interval scale and Likert scale determinations in this research are from scale of 1 to 5. This study uses several techniques of data analysis, namely: 1) Classic Assumption Test, 2) Research Instruments Test, 3) Regression Analysis and 4) Hypothesis Examination. Classic assumption test done through normality test, multicollinearity and autocorrelation test. Research instrument test conducted through validity and reliability test. Regression analysis on the data collected done by using multiple regression analysis. Hypothesis examination conducted by calculating the coefficient of determination (R^2), simultaneous significance test, and individual parameter significance test.

3 RESULTS AND DISCUSSION

3.1 Descriptive Analysis of Variables

The results of research by distributing questionnaires to 150 respondents of public universities students in Jakarta Capital City, briefly shown in Table 1 below:

TABLE 1. STUDENTS PERCEPTIONS AVERAGE SCORE TOWARD INFORMATION SYSTEM IN EDUCATIONAL ENVIRONMENTS MANAGEMENT AND MOTIVATION TO LEARN

Variable	Dimension	Average Score	Specification
Information System in Educational Environments Management	Collection of Information on the Physical Elements Maintenance	3,8	Good
	Information Unit of Social Elements Development	3,6	Good
Motivation to learn	Stimulation of Learning Requirement	4,2	Very Good
	Encouragement of Learning Energy	4,2	Very Good
	Intensity of Learning Effort	3,8	Good

Source: Data processed

Based on the results in Table 1, the two-dimensional measurement of educational environments management, which is, the collection of information on physical elements maintenance and information unit of social elements development, shows the average score of public universities students perception in Jakarta Capital City towards it is respectively by 3,7. The perceptions average score of a collection of information on physical elements maintenance by 3.8 is a perception scores that is considered as the good category, it means a collection of information on physical elements maintenance that covers the facility and accuracy of infrastructures information, the facility and accuracy of academic information, academic information up to date, as well as the facility and accuracy of students affair information has been done well by the management of public universities in Jakarta. A collection of information on physical elements maintenance that can provide information facility and accurately on the instructions for use and maintenance of learning infrastructure will optimize the learning process because students can take advantage of the learning infrastructure in accordance its function. Additionally, the utilization accordance with the procedures will make the learning infrastructure to be more durable. The facility and accuracy of obtaining the academic information can make students more passionate and enthusiastic in learning. Academic information that is always updated, so it is up-to-date, would make students more enthusiastic to participating in the learning process. Likewise, with the facility and accuracy of student affairs information, either information about student activities, scholarships, competitions and championships, as well as information about student achievement, it will increase the intensity of the student efforts to study more seriously. Earnestness of students in learning process will optimize the learning outcomes and advance the objectives of national education. The perception average score of the information unit of social elements development by 3.6 is the perception that is in a good category, it means information unit of social elements development that covers the guidance lecturers information disclosure, facility of lecturers guidance information, facility of student affairs consultation information, and facility of the administration consultation information, has been done well by the management of public universities in Jakarta Capital City. Implementation of the information unit of the social elements development that has been done well, is expected to improve the effectiveness of the learning process. Student motivation to learn at public universities in Jakarta Capital City has been very strong, with an average score of 4.2 for student perception in stimulation of learning requirement, 4.2 for an encouragement of learning energy, and 3.8 for the intensity of the learning effort. Students Motivation to learn that already very strong, expected to be maintained, with attempt to show the interest and aptitude of students in the learning process so that the students can be more enthusiastic and passionate in the learning process.

3.2 Influence Analysis Between Variables

The influence of Information System in Educational Environments Management towards Stimulation of Learning Requirement Respondent data processing that has met the criteria of classical assumption, i.e. normality test, autocorrelation and multicollinearity. Test results of the influence of information system in educational environments

management toward learning motivation with the stimulation of learning requirement dimensions can be seen in table 2 below:

TABLE 2. TEST RESULTS OF INFORMATION SYSTEM IN EDUCATIONAL ENVIRONMENTS MANAGEMENT INFLUENCE TOWARD STIMULATION OF LEARNING REQUIREMENT AS LEARNING MOTIVATION DIMENSION

Dimension of Information System in Educational Environments Management Variable (Independent)	Variable Not Free (Dependent Variable)		
	Learning Motivation Dimension: Stimulation of Learning Requirement (Y11)		
	Unstandardized Coefficients (B)	P-Value	F-Value
Collection of Information on the Physical Elements Maintenance	0,221	0,023	0,013
Information Unit of Social Elements Development	0,343	0,005	

Source: Appendix 1, the processed SPSS 21

Based on the test results in Table 2, it shows that collection of information on the physical elements maintenance have a positive and significant influence toward stimulation of learning requirement as a dimension of learning motivation. This is supported by the p-value of 0.023 and is smaller than an alpha value of 0.05, so that it can be concluded not accept Ho or a positive influence between collection of information on the physical elements maintenance with stimulation of learning requirement. The process of strengthening students learning motivation through the stimulation of learning requirement, are affected by the availability of collection of physical element maintenance information that is owned and delivered by the management public universities in Jakarta Capital City. This means, the increased of the collection of information regarding the maintenance of the physical element, especially information regarding the utilization of facilities and infrastructure to student learning that they have and delivered by the managers of public universities, it will have an impact on increasing the stimulation of learning requirement, which in this case as an indicator of strengthening the student motivation to learn. Likewise, if the collection of physical elements maintenance information, especially information concerning the utilization of learning infrastructures, very limited and hardly accessible for students, the stimulation of learning requirement become so low that can be debilitating the student learning motivation. The second dimension of information system in educational environments management is information unit of social elements development has a positive and significant influence toward stimulation of learning requirement as the dimensions of learning motivation. It can be shown in Table 2, the p-value of 0.005 and is smaller than the value alpha 0.05, which means it accept Ha. The value of coefficient is 0.343 and positive means that the information unit of social elements development has a positive and significant impact on the stimulation of learning requirement as the dimensions of learning motivation. The influence of Information System in Educational Environments Management towards Encouragement of Learning Energy Respondent data processing that has met the criteria of classical assumption, i.e. normality test, autocorrelation and multicollinearity. Test results of the influence of information system in educational environments management toward learning motivation with the encouragement of learning energy dimensions can be seen in table 3 below:

TABLE 3. TEST RESULTS OF INFORMATION SYSTEM IN EDUCATIONAL ENVIRONMENTS MANAGEMENT INFLUENCE TOWARD ENCOURAGEMENT OF LEARNING ENERGY AS LEARNING MOTIVATION DIMENSION

Dimension of Information System in Educational Environments Management Variable (Independent)	Variable Not Free (Dependent Variable)		
	Learning Motivation Dimension: Encouragement of Learning Energy (Y12)		
	Unstandardized Coefficients (B)	P-Value	F-Value
Collection of Information on the Physical Elements Maintenance	0,420	0,000	0,002
Information Unit of Social Elements Development	0,322	0,046	

Source: Appendix 1, the processed SPSS 21

Based on the test results in Table 3, it shows that collection of information on the physical elements maintenance have a positive and significant influence toward encouragement of learning energy as a dimension of learning motivation. This is supported by the p-value of 0.000 and is smaller than an alpha value of 0.05, so that it can be concluded not accept Ho or there is a positive influence between collection of information on the physical elements maintenance with encouragement of learning energy. The process of strengthening students learning motivation through the encouragement of learning energy, are affected by the availability of collection of physical element maintenance information that is owned and delivered by the management public universities in Jakarta Capital City. This means, the increased of the collection of information regarding the physical element maintenance they have, and accessible to students, and delivered by the managers of public universities, it will have an impact on increasing the encouragement of learning energy, which in this case as an indicator of strengthening the student motivation to learn. Likewise, if the collection of physical elements maintenance information, especially information concerning the utilization of learning infrastructures, very limited and hardly accessible for students, the encouragement of learning energy become so low that can be debilitating the student learning motivation. The second dimension of information system in educational environments management is information unit of social elements development has a positive and significant influence toward encouragement of learning energy as the dimensions of learning motivation. It can be shown in Table 3, the p-value of 0.046 and is smaller than the value alpha 0.05, which means it accept Ha. The value of coefficient is 0.322 and positive means that the information unit of social elements development has a positive and significant impact on the encouragement of learning energy as the dimensions of learning motivation. The influence of Information System in Educational Environments Management towards Intensity of Learning Effort Respondent data processing that has met the criteria of classical assumption, i.e. normality test, autocorrelation and multicollinearity. Test results of the influence of information system in educational environments management toward learning motivation with the intensity of learning effort dimensions can be seen in table 4 below:

TABLE 4. TEST RESULTS OF INFORMATION SYSTEM IN EDUCATIONAL ENVIRONMENTS MANAGEMENT INFLUENCE TOWARD INTENSITY OF LEARNING EFFORT AS LEARNING MOTIVATION DIMENSION

Dimension of Information System in Educational Environments Management Variable (Independent)	Variable Not Free (Dependent Variable) Learning Motivation Dimension: Intensity of Learning Effort (Y13)		
	Undstandardized Coefficients (β)	P-Value	F-Value
Collection of Information on the Physical Elements Maintenance	0,290	0,0423	0,001
Information Unit of Social Elements Development	0,667	0,0000	

Source: Appendix 1, the processed SPSS 21

Based on the test results in Table 4, it shows that collection of information on the physical elements maintenance have a positive and significant influence toward intensity of learning effort as a dimension of learning motivation. This is supported by the p-value of 0.0423 and is smaller than an alpha value of 0.05, so that it can be concluded not accept H_0 or there is a positive influence between collection of information on the physical elements maintenance with intensity of learning effort. The process of strengthening students learning motivation through the intensity of learning effort, are affected by the availability of collection of physical element maintenance information that is owned by the management public universities in Jakarta Capital City. This means, the increased of the collection of information regarding the maintenance of the physical element, especially information regarding the utilization of facilities and infrastructure to student learning that they have and delivered by the managers of public universities, it will have an impact on increasing the intensity of learning effort, which in this case as an indicator of strengthening the student motivation to learn. Likewise, if the collection of physical elements maintenance information, especially information concerning the utilization of learning infrastructures, very limited and hardly accessible for students, the intensity of learning effort become so low that can be debilitating the student learning motivation. The second dimension of information system in educational environments management is information unit of social elements development has a positive and significant influence toward intensity of learning effort as the dimensions of learning motivation. It can be shown in Table 4, the p-value of 0.000 and is smaller than the value alpha 0.05, which means it accept H_a . The value of coefficient is 0.667 and positive means that the information unit of social elements development has a positive and significant impact on the intensity of learning effort as the dimensions of learning motivation.

CONCLUSION

Student motivation to learn would be strengthened if the information system in educational environments management at public universities in Jakarta Capital City enhanced its effectiveness. Results of linear regression calculation shows that the information system in the educational environment management has a positive and significant effect in increasing the student motivation to learn at of the public universities in Jakarta Capital City. Increasing the effectiveness of information systems in the educational environment management that focuses on optimizing the collection of information concerning the maintenance of the physical elements and the information

unit of social elements development proved to be quite influential on strengthening the students motivation to learn, characterized by increased stimulation of learning requirement, strengthen the encouragement of energy learning and increased the intensity of the effort to learn students at the public universities in Jakarta Capital City. Environmental management information system that focuses on the availability of the collection of physical element maintenance information through of the facility and accuracy of the information infrastructure, the academic information, the student affair information, and information that is always up to date, proven to strengthen students motivation to learn. As well as the information system in educational environments management that focuses on the comprehensiveness of information unit of social element development through the disclosure of lecturer guidance, facility of lecturer consultation, the facility of student affair consultation, and the facility of administration consultation is proven to strengthen students motivation to learn. The results also reinforce the pre-study survey that has been conducted by researchers at the outset, that the educational environment management information system indicated the most dominant external factors affecting student motivation to learn at the public universities in Jakarta Capital City. Optimization of information systems in educational environments management at universities should make the information system to facilitate the leadership ranks of universities (Rector, Dean, Head of Study Program and other leaders rank) in managing and evaluating the entire learning process, resulting in improved quality of universities academically [14]. Information systems in educational environments management in university ought to employ sophisticated technology mainly on learning activities, among others by using a web-based information system and mobile. The information system is expected to create automated reports, simplify and shorten the time of completion of each processing and data processing by integrating data for all reports, also to reduce operational costs such as paper usage in printing the report [15]. Information system services in the educational environmentsmanagement should also facilitate students to access a variety of information despite it must maintain confidentiality in certain aspects, in addition, the information system should also have an attractive appearance and easily understood [16]. Increasing the effectiveness of information system in educational environments management is expected to make students more interested, attentive, excited, and enthusiasm in learning, so that students will be diligently completing a task, resilient in facing the adversity and thoroughly in solving the problems they encounter in the learning process. The strengthening of the students motivation to learn are also believed to make the students courageous to show their interest and desire to demonstrate their talents in a creative and innovative ways. The freedom to be creative will make students become a skilled individual, more confident, self-reliant and productive socially and financially. Strengthening students' learning motivation will ultimately have an impact on the achievement of national education objectives and the welfare of society as a whole, one of which was due to the decrease of unemployment among educated scholars.

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