QUALITY ASSURANCE SYSTEM BETWEEN THE ISLAMIC STATE UNIVERSITY AND THE STATE UNIVERSITY

Agus Zaenul Fitri
State Islamic Institutes (IAIN) Tulungagung
Jl. Mayor Sujadi Tim No.46, Tulungagung, Jawa Timur.
Email: guszain@yahoo.co.id

ABSTRACT

The purpose of this research is to compare the quality assurance system in the Islamic State University at *Universitas Islam Negeri* (UIN) of Malang and The State University at Technical Institute of Surabaya (*Institut Teknik Surabaya*/ITS). The findings concerning quality assurance system cover; the reasons for implementing the quality assurance, the core value of quality planning, the quality assurance of implementation, the quality assurance of evaluation, the supporting factor of the implementation of quality assurance, the quality assurance strategy, and the result of quality assurance. This study uses exploratory mixed method research design with the developmental model instrument. While the process of this research starts with collecting qualitative data, then the extreme finding is followed by collecting quantitative data, and the end of this process is interpreting data together. From the qualitative data, it can be concluded that there is a difference between quality assurance in UIN Malang and ITS. The quality assurance in the institution management (X), the academic aspect (Y), and customers' satisfaction (Z) was significantly different (significantly) between UIN Malang and ITS. Customers' satisfaction at UIN Malang is influenced by the quality of management and academic with a larger proportion than in ITS.

Keywords: Islamic State University, State University, Quality Assurance.

ABSTRAK

Tulisan ini berisikan pemaparan hasil penelitian yang bertujuan untuk membandingkan sistem penjaminan mutu di Perguruan Tinggi Keagamaan Islam di Universitas Islam Negeri (UIN) Malang dan Perguruan Tinggi Umum di Institut Teknik Surabaya (ITS). Data sistem penjaminan mutu pada penelitian ini adalah alasan penerapan sistem penjaminan mutu, inti perencanaan nilai mutu, implementasi penjaminan mutu, evaluasi penjaminan mutu, faktor yang mendukung dalam mengimplementasikan penjaminan mutu, strategi penjaminan mutu, dan hasil penjaminan mutu. Penelitian menggunakan metode kolaborasi eksploratori dengan model instrumen yang dikembangkan, sementara proses penelitian dimulai dengan mengumpulkan data kualitatif, diikuti dengan mengumpulkan data kuantitatif, kemudian menginterpretasikan data hasil penelitian tersebut. Dari data kualitatif hasil penelitian menunjukkan bahwa ada perbedaan yang signifikan antara penjaminan mutu di UIN Malang dan ITS. Perbedaan penjaminan mutu di UIN Malang dan ITS tampak pada aspek manajemen lembaga (X), aspek akademik (Y), dan kepuasan pelanggan (Z). Kepuasan pelanggan di UIN Malang dipengaruhi oleh kualitas manajemen dan akademik dengan proporsi yang lebih besar dibandingkan di ITS.

Kata Kunci: Perguruan Tinggi Keagamaan Islam, Perguruan Tinggi Umum, Penjaminan Mutu.

INTRODUCTION

Education in Indonesia, in general, faces serious challenges and issues concerning its educational quality, including the low of input, process to output quality, and also the outcome produced by the schools. Data from Human Development Index in 2014 showed that Indonesia ranked 108 far below Malaysia which ranked 62 among 187 countries in the world; even it is lower two ranks than the previous year (UNDP, 2016). Three main factors place human resources as the strategic factor in the globalization of economy and information technology.

In addition to the issue of quality above, higher education or universities in Indonesia still face other problems. Universities have not been able to fulfill the industrial needs because it is considered as being late in responding the development of information and technology. Hence, the educational matter is always deemed as out-of-date in preparing ready to work graduates. Meanwhile, Dikti (Higher Education General Directorate) (2003, p. 9-10) regulate that higher education must be able to fulfill the needs of stakeholder, such as (1) social needs, (2) industrial needs, and (3) professional needs. However, according to the objectives of education at regulation of *Undang-undang Sistem Pendidikan Nasional* (The Law of National Education System) 2003, it is said that education aims at developing the students potential to be a pious man and faithful to the Almighty, having great character, healthy, having knowledge, creative, autonomous, and becoming democratic and responsible citizen. Nevertheless, in the context of quality assurance according to Vincent (2008, p. 28), an institution or organization, to compete in global rivalry, could not deny the demand and need of the stakeholders and must be able to satisfy the costumers, even if it tends to be mechanistic and considering human as robot.

The position of BAN-PT (the Board of National accreditation- for Higher Education) as the board of government accreditation is still seen as not being fully consistent in implementing the quality assurance, for instance, the weaknesses still can be found within its quality insurance, namely: (1) it is time consuming and discontinuing range of monitoring process; (2) its social responsibility has not appeared in its clauses; (3) it is still product oriented not the process; and (4) it focuses on administrative requirement than the substantive aspect, which is the simultaneously quality improvement. Thus, another quality assurance system is needed to aid and train higher education to be able to build its educational quality culture.

Therefore, nowadays there must structurally adjustment of the national higher education system. So that in 2015 there will be a healthy higher educational system, which is effectively coordinated and represented by quality, access, and justice as well as autonomy characteristics. Being aware

of the urgency of an existence of a quality assurance institution, higher education responds it by establishing LPMP (Education Quality Assurance Institution) in higher education based on government regulation No. 63 (2009) Verse 1, that LPMP is the technical implementer unit of National Education Department as what has been regulated within Regulation of National Education Minister Number 7 in 2007 about organization and job description of educational quality assurance and the Regulation of National Education Minister Number 66 in 2008 about organization and job description of educational quality assurance.

Together with the emergence of increasing number of Quality Assurance Institutions (QAI) in higher education which functions as educational quality assurance of higher education, in fact, they have not succeeded yet in managing and ensuring the quality of the higher education. What exactly happens is that QAI itself is not useful and not qualified enough because of many reasons, including the issues on human resources, information technology, and its financial and system. More than that, QAI even often is not successful in implementing the concept of quality assurance in higher education. The question is then, how QAI is able to ensure the education quality in higher education whereas it is powerless and not qualified. Therefore, it is urgent to have a strategy to succeed the implementation of higher education quality assurance as part of the effort to quality improvement and need fulfillment for the customers.

Looking at the importance of quality assurance management position in fulfilling the education quality standard and improving educational competitive effort, thus the writer considers that it is important to employ this research. Research focuses especially on the quality assurance strategy of higher education. Quality assurance as one of the ways to reach the expected objectives, to ensure simultaneously and consistently the quality of input, process as well as the output of education, and able to fulfill and satisfy the need of stakeholders.

The purpose of this research is to compare the quality assurance system in State Islamic University (Universitas Islam Negeri /UIN) Malang and The State University Technical Institute of Surabaya (Institut Teknik Surabaya/ITS). The quality management includes the reasons for implementing the quality assurance, the core value quality planning, the quality assurance implementation, the evaluation of quality assurance, the supporting factor of the implementation of quality assurance, the quality assurance strategy, and the result of quality assurance.

In utilizing the study with such research problems above, an exploratory mixed method is used. The researcher employed a mixed method by starting with qualitative data and then followed by collecting information

quantitatively. The objective of exploratory design is a procedure which at first gathers qualitative data to explain a phenomenon, and further collects quantitative data to explain the relationship found within the quantitative data. The most common application for this design is to describe a phenomenon, to identify themes, instrument design, and testing.
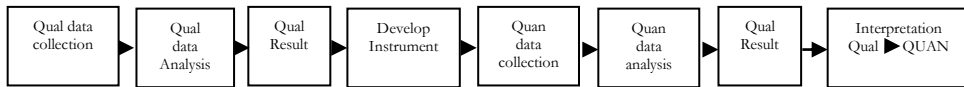

Figure 1. Exploratory Design: Instrument Development Model (Source: Creswell, 2007, p. 76)

In the exploratory mixed method design, much more qualitative data collection becomes a path to develop and determine the quantitative instrument. Because there are two different stages in this research using different research design, therefore, there are two data analysis forms done. First is qualitative data analysis; and second is quantitative data analysis. In qualitative data analysis, the thematic model is utilized, while in quantitative data analysis the researcher limited this research into the result of quality assurance of institution management (X) and academic (Y) toward costumer satisfaction (Z). To determine relationships between the exogenous variables (independent variables) on endogenous variables (dependent), path analysis was used. Path analysis basically is a form of multi - regression analysis. This analysis is based on the path diagram to help to conceptualize the problems or to test the complex hypothesis. The relationship will be reflected in the path coefficients which actually is standardized regression coefficients. Application of path analysis in this study adopts stages developed by Solimun (2002, p. 44-56).

This research was done at two different research locations. The first is State Islamic University/Universitas Islam Negeri (UIN) Malang, and the second is Technical Institute of Surabaya/Institut Teknik Surabaya (ITS). UIN Malang is one of State Islamic Universities which implements quality assurance system that refers to BAN-PT and also ISO 9001:2008. BAN-PT is used as a reference to get accreditation nationally as mandated by *Undang-undang Sistem Pendidikan Nasional* (The Law of National Education System) No 20 in 2003, *Peraturan Pemerintah* (Government Regulation) No 19 in 2005 and *Keputusan Presiden* (President Judgment) No. 65 in 2009 about quality assurance system in *Perguruan Tinggi* (Higher Education). The implementation of ISO 9001: 2000 quality assurance system is to gain international reputation and standard.

The population of this research is the whole primary costumer and internal costumer of UIN Malang and ITS. The primary costumers of higher education according to Sallis (1993. p, 21) are the sides that receive the

education service benefit directly from the institution, in this case, are the students. Meanwhile, the internal costumers according to him are those who institutionally have an interest in the institution development, in this case, are the staff and also lecturers. Based on the explanation above, then the number of all population in this research are 27.543 persons. The samples of this research are determined by probability sampling technique, by proportionate stratified random sampling.

DISCUSSION

Quality Management

Besterfeild (1999, p. 239) explains that 14 (fourteen) stages are needed to build the quality assurance management, starting from senior management commitment to the registration process. The detail explanation is as follows:

> Senior management commitment; appoint the management representative; awareness; appoint an implementation team; training; time schedule; select element owners; review the present system; write the documents; install the new system; internal audit; management review; pre-assessment; and registration.

This view indicates that stages done systematically are needed to implement quality assurance management in higher education. The existence of management commitment is much better than doing activities like training, document arrangement and even the activity of audit itself. It is important to have serious effort and commitment for all institution and organization components that want to be successful in implementing quality management system at each higher education.

To create such quality management, according to Murgatroyd and Collin (1994, p. 56), there are 4 (four) strategies can be utilized in achieving the expected quality, namely: "(1) Broad open, (2) Enhanced Open; (3) Basic Niche; and (4) Enhanced Niche." First is focusing on the effort to express widely about the quality concerning with the required curriculum. As stated by Murgatroyd and Collin (1994, p. 57), that, the focus is providing sound quality across the broad range of the required curriculum and in social activities associated with schooling. The second is it depends on how high the quality management standard is achieved by considering national standard and minimum required standard. The third strategy is developing a good reputation in some aspects such as certain curriculum, religion, sport and soon. The fourth is showing good performance through all aspects were done, because reputation, costumers' expectations are high. Crosby (1993, p. 64) also explains that there are fourteen steps in improving the quality, such as by:

1. Management commitment, which explains that the management is committed to improving the long term quality.
2. Establishing the qualified team.
3. Identifying the source of the recent problem and the potential problem.
4. Adjusting the quality cost and explaining how the cost is utilized as a management tool.
5. Improving the awareness of personal quality and commitment to all of the staff.
6. Applying immediate act to restore the identified problems.
7. Holding zero defect programs.
8. Training the supervisors to be responsible the quality program.
9. Arranging zero defect days to convince all staff to be aware of the new direction.
10. Encouraging the individual and team to form personal and team improvement goal.
11. Encouraging all staff to express to the management the barriers they are facing in achieving the quality goal.
12. Admitting or accepting all of the staff with good achievement.
13. Forming the quality board to develop continuous communication.
14. Repeating each of the stages to explain that simultaneous improvement is a never end process.

Both theories place the commitment as a fundamental part in creating quality management system in higher education while another aspect can be developed based on the human and non-human resource ability by adopting and adapting various models and criteria quality assurance systems of higher education.

Core Values and Ethics

Collin and Porras (2004, p. 12), define core values as a set of beliefs that influence the way people and groups behave. The core value is also defined as a set of eternal basic organization principles which supervise the steps of certain organization. Organization values will represent the organizational culture. Organization values are the soul of the operational practice. According to Besterfield (1999, p. 20), that core values may be able to foster TQM (Total Quality Management) and define culture. Take an example of big companies such as Toyota, Google, and McDonald who have succeeded in creating core values. The values truly built by either the founder ideas or the results of consensus could be a driving force which pushes and supports the ability of the organizations to fulfill the expectations and the needs of the costumers. Sanusi (as cited in Iriantara, 2009, p. 293), explains

five basic values as a reference to act, thought, and behavior of the organization, such as (a) theological values *(ilâhiyyah),* (b) teleology values, (c) logical values (scientific*),* (d) ethical values, and (e) aesthetic values, then it is added to physiological values which are also need to be noticed. Beside core values above, there is another aspect needs attention that is ethic*,* because ethic is *"body of principle"* which directs human (individual or organization) to do right and appropriate as the norm values. Whereas ethics is defined as follows:

> Ethics is the body of principles or standards of human conduct that govern the behavior of individuals and organizations. It is knowing what is the right thing to do and is learned when one is growing up or at a later date during an organization's ethics training program. Because individual have a different concept of what is right, the organization will need to develop the standards or code of ethics for the organization (Bottorf, 1997, p. 57-59).

Every organization can determine their own core values, and they are also able to employ it as a starting point to establish their organization, as the following: (1) Customer driven quality; (2) Leadership, (3) Continues Improvement and Learning, (4) Valuing Employees, (5) Fast Response; (6) Design Quality and Prevention; (7) Long-Range View of the Future; (8) Management by Fact; (9) Partnership Development; (10) Corporate Responsibility and Citizenship; and (11) Result Focus.

To construct the ethical behavior in the context of organization quality management according to Bottorf (1997, p. 28), it is needed to have the commitment, new policy, and procedure, continuous improvement, prediction, prevention and promotion.

Qualitative Research Findings

Quality assurance system between UIN Malang and ITS schematically shown in Tabel 1.

Tabel 1. Mapping of Across Site Findings

No	Theme	UIN Malang	ITS
1	The reasons for implementing the quality assurance.	a. Showing that Islamic religion and PTAIN are qualified.	a. Maintaining the result of BAN-PT accreditation.
		b. Being equal with other progressive universities/PT.	b. Obtaining students form overseas.
		c. Becoming	c. Gaining national

2		International University/PT. d. Becoming part of World Class University.	and international reputation. d. Improving the service. e. As continues improvement.
	Core Value underlying the implementation of quality management.	a. Pious deed. b. *Úlu 'l-Albâb.* c. *Ihsân.* d. *Itqân.* e. Mode of existence.	a. Quality first. b. Ethique and integrity. c. Creativity and innovation. d. Excellence. e. Strong leadership. f. Synergy.
		g. Principle and paradigm of quality assurance (*Permendiknas* number 63 in 2009).	
2	Quality planning.	a. Diagnosing toward the available running system.	a. Making the procedure of quality by adopting the system of PECF (Plan, Execute, Control, Feedback).
		b. Applying gap analysis. c. Making document: 1) Determination of goals and objectives to be achieved. 2) Determination of the necessary prerequisite in achieving the goal. 3) Creation and design of the system to be implemented. d. Training for ocument development.	b. Creating Standard Operating System (SOS).

		e.Identifying process which produces 17 certification scopes.	
	Determination of quality objectives and standards.	Reference: a. Criteria determined by BAN-PT (7 criteria). b. Quality assurance criteria (13 criteria). c. Clauses in ISO 9001:2008 (8 clauses). d. Survey (IKM).	Reference: a. Academic reference to the requirements of BAN - PT, whereas Institution Management uses the requirement of ISO 9001 : 2000. b. The results of self-evaluation. c. Internal audit. d. Survey of the lecturers and students.
		Considered Aspects: a. The comparison of previous achieved quality. b. More effective quality objectives.	Considered Aspects: a. Previous achieved quality. b. Achieved quality of the competitor. c. Requirement. d. Organization resource capability.
	Quality assurance mechanism.	Quality assurance mechanism with the following steps: a. Establish the office of quality assurance (KJM). b. KJM creates a system design, document creation, implementation and internal audit. c. Establish a quality assurance committee at the level of the unit /faculty.	Quality assurance system: a. Establish the Quality Assurance Institute (LJM). b. LJM develops and implements quality assurance system. c. Following cycle PECF as the development of PDCA.

		d. Conduct internal audits (by KJM). e. Check the achievement of quality objectives. f. Construct quality design. g. Report the results of the audit to Rector. h. Perform the corrective action. i. Training of lecturers and staff. j. Evaluation and measurement. k. Discussion of the results of the audit in the RTM.	
3	Quality assurance implementation.		
	Preparation to be done.	a. Preparation of the Quality Policy and System Design. b. Writing in the document of quality manual, quality procedures and working instructions. c. Training in implementing the documents. d. The trial test (I) the Application of ISO 9001: 2000. e. Internal quality audits by consultants by	a. Mapping on the work of each unit. b. Provide guidance to the quality product to be produced (called as the quality policy). c. Identification of all jobs available in ITS. d. Analysis of job appropriates to the system. e. The arrangement of the documents. f. Writing the system design in the document of ISO 90001: 2000

		training several lecturers of UIN. f. Trial test (II). g. Management Review Meeting.	standard. g. The documents are reviewed by MR. h. The document is approved by the Rector.
	Process to begin the implementation.	a. Establishment of Steering Committee (SC). b. Assessment diagnostic. c. Process identification. d. Development of the documentation system. e. Review and socialization. f. Implementation.	a. Construction and approval of quality objectives by units and departments. b. Determining the certification institutions. c. Testing the internal team of auditors. d. Trying out the quality assurance system. e. Management review meetings.
	The process of the internal quality audit.	a. Training / refreshing the internal quality auditors. b. Providing the letter of duty. c. Composition and delivery the schedule of the department / unit to be audited. d. Making questions for audit. e. Doing a visit to the unit or department being audited. f. Recording on the findings of audit g. Summary of audit findings. h. Giving information	a. Testing internal quality auditor by TUV. b. Arranging an action plan the audit process. c. Determining the audit schedule. d. Selecting the auditors. e. Sending the schedule of audits. f. The audit implementation. g. Recording the findings. h. RTM meeting. i. Improvement and development action.

		on audit findings. i. Constructing the solution step. j. Management review meeting.	
	The process of external audit and certification.	a. Choosing the certificatory institution.	
		b. Sending request for an external audit of the certification institution of SGS. c. Agreement of the various deals between being examined PT and certificate or institutions. d. Sending documents of ISO standards by examined PT to certificate or institution. e. Sending the schedule for certification from certificate or institutions to examined PT. f. Certification implementation. g. Auditing. h. Giving ISO certificate. i. Sending the schedule surveillance. j. Note the results of the audit. k. Improvement action. l. Development of	c. Sending the conditions that must be met. d. Giving Approval of the terms of GLOBAL. e. Planning a schedule of visits. f. Socializing. g. Training and testing of internal auditors. h. Implementing a trial test of quality assurance cycle. i. Submitting documents ISO standards. j. Sending audit schedule. k. Carrying out audits. l. Giving the certificates. m. Sending the schedule surveillance. n. Note the results of the audit. o. Improvement action. p. Development of quality assurance systems.

		quality assurance systems.	
	Certificate or institution.	Certificate is given by a certificate or institution International SGS.	Certificate is given by a certificate or institution Global International.
4	Evaluation of quality assurance.	a. Monitoring and internal auditing are done by LPMP.	a. Self assessment.
		b. External audit is performed by ISO team from SGS.	b. Monitoring and internal evaluation.
		c. Accreditation by BAN-PT.	c. Internal audit by PJM team and member.
			d. Accreditation by BAN-PT and certification ISO from GLOBAL.
5	Supporting factor of the implementation of quality assurance.	a. Strong leadership.	a. Facility and infrastructure.
		b. Human resources.	b. Human resources.
		c. Facility and infrastructure.	
	The inhibiting factor of the implementation of quality assurance.	a. Lack of management commitment.	a. Human characteristics.
		b. Leadership style.	b. Lack of competitor.
		c. Internal communication.	c. Lack of time to communicate.
		d. Organization changes.	d. Organization culture.
6	Quality assurance strategy.	a. Simultaneously socialization.	a. Building the awareness.
		b. Policy	b. Training of

		synchronization.	PT/Higher Education quality assurance.
		c. Management commitment revitalization.	c. Establishing internal auditor.
		d. Training of auditor internal team.	d. Improving service commitment.
		e. Giving reward and punishment.	
		f. Human resources training and development.	
7	Result of quality assurance.		
	Institution management.	a. The occurrence of continuous improvement. b. Implementation of the PDCA cycle. c. Better documentation and records. d. Can ease the job. e. Performing improvement of criticism. f. Ease of the process. g. The occurrence of confusion due to changes in the system. h. There is a negative stigma toward the management t. i. The erroneous perception of ISO.	a. Effective and efficient working conditions. b. The discipline of clearly of tasks and responsibilities division. c. Document the more restrained. d. Assist the process of BAN - PT accreditation. e. Working habits of employees. f. Improving the service. g. Having internal quality auditor. h. Increasing of staff's belief toward the institutions. i. Confusion due to changes in the system
	Academic Aspect.	a. Being consistent in carrying out the	a. Zero absent (no empty hours).

		syllabus. b. The existence of a lecture contract. c. Absence of empty hours. d. Lead to active learning. e. The provision of more and more tasks. f. The assessment activities are more clearly.	b. Work -based learning. c. The more varied atmosphere of learning. d. Entering data and value is faster. e. Maintain the quality of education. f. The clearer System of assessment.

From the quality assurance data in the Table 1 above, it can be concluded that in general, there has been found the similarity of reasons in implementing quality assurance system between UIN and ITS, those are to improve the institution reputation and as an entrance door to be Word Class University. But specifically there are some differences of quality assurance between UIN Malang and ITS. The reason for implementing the quality assurance in UIN Malang included showing that Islamic religion and PTAIN are qualified, to be equal with other universities, and to become an international university. Whereas ITS showed their reason to maintain the result of BAN-PT accreditation, to obtain students from overseas, to gain national and international reputation and to improve their service. In the term of the core value of quality planning, UIN Malang underlies pious deed, *ûlu 'l-albâb, ihsân, itqân*, and mode of existence in opposite with ITS that emerges quality first, *ethique* and integrity, creativity and innovation, excellence, strong leadership and synergy as their core values. The quality assurances of implementation and also evaluation in both two universities are really different it can be shown clearly on the table.

The supporting factor from UIN Malang lays strong leadership, human resources, facility and infrastructure and also leadership style. On the one hand, ITS lays facility and infrastructure, human resources, human characteristics and organization culture. Those show the different factor. The quality assurance strategy and the result of quality assurance are also shown the significant different. For example, UIN Malang used socialization and synchronization as their strategies, in another hand, ITS used building awareness and training the higher education quality assurance to boost their quality assurance.

Quantitative Research Findings at UIN Malang

The variables used in the quantitative research are the results of quality assurance in the institution management (X), the findings on the quality assurance in the academic aspect (Y), and costumers' satisfaction (Z). The three variables are measured using questionnaires with a graphic rating scale. The results of questionnaires from 116 respondents towards the findings on the quality assurance of institution management, academic aspect, and costumers' satisfactions in UIN Malang are mostly good.

The respondents' rating on the quality assurance of the institution management is in the interval "3.25 to 2.51". This means that the majority of respondents' ratings are classified as good in quality. The statements on the average are recalculated based on the sub-variable grouping of the institution management, thus, it is found out that the respondents' highest ratings in its order are the aspects of the implementation (mean score 1-4 = 2.87), aspects of planning (2.85), aspects of evaluation (2.67).

The respondents' ratings on the quality assurance of the academic aspects in UIN Malang, is also quite good. This is evident from the average score for each question which is in the intervals of good category. These results indicate a continuous quality assurance process between the institution management and the academic aspects. On the average, every statement in the academic aspects is recalculated based on the sub-variables grouping. Hence in the academic aspect, respondents sequentially gave the highest ratings in the academic setting (mean score of 2.87), curriculum (mean score of 2.82), and the learning atmosphere (mean score 2.79).

For the description of the customers' satisfaction level on quality assurance in the institution management and the academic aspect, it is known that the average score for each statement is also on a third assessment classification with each statement interval between 3.25 and 2.51. That is, the majority of respondents are satisfied with the quality assurance in the institution management and academic aspects. This result is also in line with the results of the observation on two previous variables. This indicates a linear relationship between the implementation of quality assurance in the institution management and academic aspects toward customer satisfaction. In other words, if the quality assurance in the institution management and academic aspects is improved continuously, customers' satisfaction will also increase gradually. Based on the classification of satisfaction level within the sub-variables of the study, it is known that the highest level of respondents' satisfaction is on the institution management.

Quantitative Research Findings at ITS

17 out of 18 items of the respondents' ratings on the quality assurance in the institution management of ITS have interval ratings between 2.51 and 3.25. Meanwhile, one item on the employee work habits has between 1.76 and 2.50 interval ratings. That means that the majority of respondents' ratings on the institution management are classified as good, except the employee work habits which are considered as inadequate. The average score of planning is 2.84, the implementation is 2.63, and the evaluation is by 2.76. That means that the orders of the respondents' ratings on the highest quality assurance in the institution management are the planning, evaluation, and implementation.

Meanwhile, the results of the respondents' ratings on the quality of academic aspects show not much different with those of the management of the institution. That is, the majority of respondents gave a positive rate on the quality assurance in the academic aspects. This is apparent from the majority of the average score which is in the interval of 3.25 to 2.51 ratings. Of the 10 statements prepared to interpret the quality assurance in the academic aspects, 9 of them are rated positively, and one other item, which is about the quantity of students' assignment, is considered as very positive. The majority of respondents rate more on the burden of academic work in ITS. These results indicate a linear relationship between the quality assurance in the institution management and academic aspects. In another sense, the quality assurance in the management of the institution has been conducted on an ongoing basis with the quality assurance in the academic field. If the average of every statement in the academic aspects is recalculated based on sub-variables grouping, thus on the academic aspect respondents in sequence rated the highest in the learning process (mean score 3.07), curriculum (mean score of 3.05), and the learning atmosphere (mean score 3.04).

On the description of the customers' satisfaction level on the quality assurance in the institution management and the academic field, it is apparent that the average score for each statement is also on the third rating classification in the interval between 3.25 and 2.51. That is, the majority of respondents were satisfied with the results of the quality assurance in the institution management and academic aspects in ITS. These results are also sustainable with the previous two observations. This means that if the quality assurance in the institution management and academic aspects are improved continuously, customer satisfaction will also increase gradually. Based on the classification of satisfaction level of the sub-variables of the study, it is found that the highest level of satisfaction of respondents is on the academic aspects.

The Result of Path Analysis of UIN Malang and ITS

Thematic model of quality assurance of institution management (X) and academic (Y) toward costumer's satisfaction (Z) of UIN Malang is presented in Figure 2.
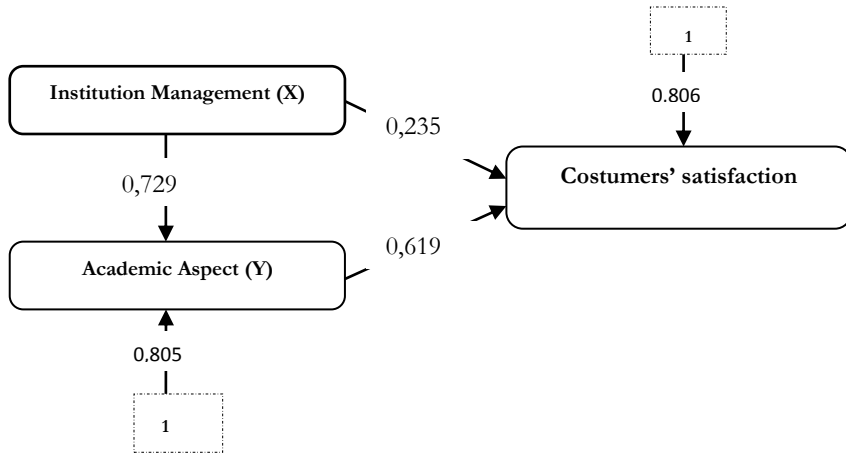

Figure 2. The Result of Path Analysis of UIN Malang.

On the path diagram above, the similarity found is as the following:

$$Y_{\text{Academic Aspect}} = 0{,}729\ X_{\text{Institution Management}} + \varepsilon_1$$

$$Z_{\text{Costumer's Satisfaction}} = 0{,}235\ X_{\text{Institution Management}} + 0{,}619\ Y_{\text{Academic Aspect}} + \varepsilon_2$$

1. Assumption Review

Some assumptions that must be met in path analysis include; *first*, the model must be linear and additive; *second*, the models are recursive; *third*, the endogenous variable data are in the interval scale; *fourth*, the variables are valid and reliable; and *fifth*, the models are correctly identified. Those five assumptions have been fulfilled in this study, thus, further analysis can then be done.

2. Parameter Estimation

The path coefficient calculation result using ordinary least squares (OLS) is shown as in the Table 2 below. The level of significance or meaningfulness of the whole path is less than 0.05, which means that all significant paths, therefore there is no need to do the trimming.

Table 2. Result of Path Analysis

Path	Path Coefficient (value of Standardized Coefficients Beta)	Probability (value of Sig. Coefficient)
Institution Management (X) → Academic Aspect (Y)	0.729	0.000
Institution Management (X) → Academic Aspect (Y) → Costumer's Satisfaction (Z)	0.235	0.005
	0.619	0.000

Thematic model of the quality assurance of institution management (X) and academic (Y) toward costumer's satisfaction (Z) of ITS is presented in Figure 3.
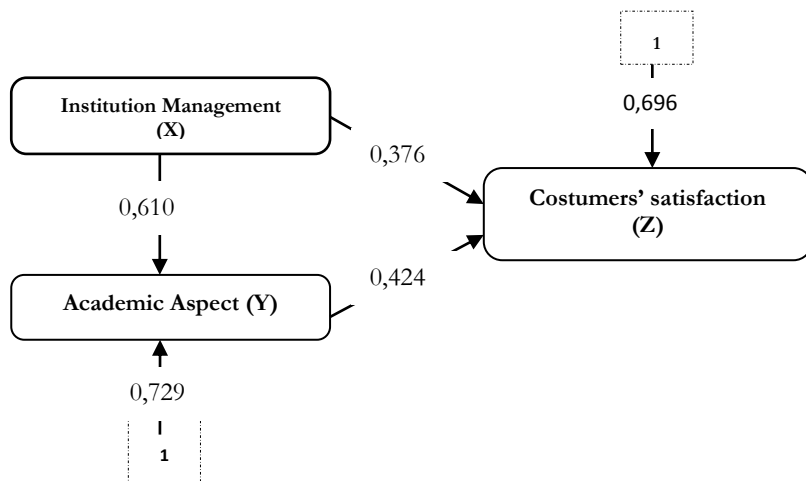

Figure 3. The result of path analysis of ITS.

The similarity which can be taken from the path diagram above is as follows:

$$Y_{\text{Academic Aspect}} = 0{,}610\ X_{\text{Institution Management}} + \varepsilon_1$$

$$Z_{\text{Costumer's Satisfaction}} = 0{,}376\ X_{\text{Institution Management}} + 0{,}424\ Y_{\text{Academic Aspect}} + \varepsilon_2$$

1. Assumption Review

As the previous assumptions, in this stage, all the assumptions underlying the application of path analysis has been fulfilled so that further analysis can be done.

2. Parameter Estimation

The result of the calculation using the path coefficient method of OLS is as presented in the table below. The level of significance or meaningfulness of the whole paths is less than 0.05, which means that all paths are significant so there is no need for trimming.

Table 3. Results of Path Analysis

Jalur	Path Coefficient (Value of Standardized Coefficients Beta)	Probability (Value of Sig. Coefficient)
Institution Management (X) → Academic Aspect (Y)	0.610	0.000
Institution Management (X) → Academic Aspect (Y) → Costumer's Satisfaction (Z)	0.376	0.000
	0.424	0.000

From the data of the testing results in both institutions (UIN and ITS) is shown produce similar conclusion patterns, but there are a different causal path between both of them. From Figure 2, it can be explained that:

1. The direct effect on the result of the quality assurance in institution management (X) toward the result of the quality assurance in the academic aspects (Y) is approximately 0,729.
2. The direct effect on the result of the quality assurance in the academic aspects (Y) toward the costumers' satisfaction (Z) is 0,619.
3. The indirect effect on the result of the quality assurance in the institution management (X) toward the costumers' satisfaction (Z) through the result of the quality assurance in the academic aspects (Y) is equal to 0,729 x 0,619 = 0,451
4. The total effect of institution management toward the costumer's satisfaction, either directly or indirectly, is 0,235 +0,451 = 0, 686

It is clearly shown that the influence of institution management toward academic aspect has significantly been different from the relationship degree 0,729. In this condition, academic aspects are frequently influenced by

institution management. Meanwhile, the direct influence of institution management toward customers' satisfaction show the correlation degree about 0,619. It can be defined that the influence of institution management gives strong enough influence directly toward customers' satisfaction. In another side, academic aspects which give direct influence significantly toward customer satisfaction. The relationship of academic aspects with customers' satisfaction can be shown with correlation coefficient about 0,619.

Meanwhile, the path analysis data at ITS can be gain from Figure 3, it can be explained that:

1. The direct effect on the result of the quality assurance in the institution management (X) toward the result of the quality assurance in the academic aspects (Y) is equal to 0,610.
2. The direct effect on the result of the quality assurance in the academic aspects (Y) toward the costumers' satisfaction (Z) is 0,424.
3. The indirect effect on the result of the quality assurance in the institution management (X) toward the costumers' satisfaction (Z) through the result of the quality assurance in the academic aspects (Y) is equal to 0,610 x 0,424 = 0,259.
4. The total effect of the institution management toward the costumer's satisfaction, either directly or indirectly, is 0,376 +0,259 = 0, 635.

Institution management gives the strong effect (coefficient correlation 0,610) toward academic aspects. However, institution management and academic aspects give the small direct influence. This small influence can be shown by correlation coefficient namely 0,376 and 0,424.

Total coefficient of determination in UIN Malang, is 57.9 %, whereas in the ITS is off 69.6%. It means that customer satisfaction at UIN is influenced by the quality of management and academic with a larger proportion than in ITS. In other words, the quality of management and academic at UIN Malang can contribute to customer satisfaction 57.9 %, whereas in ITS only 69.6 %. Costumer's satisfaction in ITS is driven by many factors, besides management and academic quality.

The findings in this study complement the theory of stages in building a quality management system proposed by Berterfield (1999, p. 239). Besterfield just explained fourteen stages in building a quality management system, which begins with the commitment of the management and ending with registration. From these results, it is known that in order to build a quality management system, prior to the commitment of management establishment it previously needs a formulation of the core values that form the basis of values (religious, moral, ethical, scientific and aesthetic) to

supervise and direct the organization in achieving its vision and mission of the organization together, then followed by building management commitment. In addition, the results of this study also reinforces the opinion from Murgatroy and Collin (1994, p. 17), on quality assurance strategy that in order to achieve the expected quality , the first step is widely expressing the quality with regard to the curriculum and management, then developing standards and reputation as well as showing the best performance of the organization. Socialization needs to be done continuously to build the subconscious of all the components in order to have a strong commitment based on the basic values that have been built together. Theoretically, the strategy of quality assurance based on core values is able to encourage the organization to achieve its institutional vision. These findings also reinforce the government's policy on the need for PT to perform quality assurance at each college in order to improve the quality of education.

CONCLUSION

In general, there has been found the similarity of reasons in implementing quality assurance system between UIN and ITS, those are to improve the institution reputation and as an entrance door to be Word Class University. However, there are core value differences underlying the implementation of quality assurance between both institutions, this is caused by their different institutional vision, the Basic values underlying the implementation of quality assurance in UIN Malang. These values are proved to be the "driving force" for PT in realizing the vision, mission, goals and targets of each Higher Education. The results of quality assurance can be viewed from two aspects, namely the institution management and academic aspects. The Results of academic quality assurance of academic and institution are able to increase the customer satisfaction. The model validity and the significant testing of path coefficients, customer satisfaction in UIN Malang can be explained by the quality assurance in the field of institution management (X) and academics (Y) 83.6 %, and the remaining 16.4 % is explained by other variables that are not explained by the model and error. The strongest influential line is on the path of the institution's management to the customer satisfaction through the academic satisfaction, with 68.6 %. That is, to improve customer's satisfaction, institution management should be improved and accompanied by development in the academic field. The customer satisfaction of ITS in the field of institution management (X) and academics (Y) of 69.6 %, and the remaining 30.4 % is explained by other variables that are not described by the model and error. The strongest influential line equal to at UIN, which is from the management of the institution to customer satisfaction through academic satisfaction, in 63.5 %. It means that to

improve customer satisfaction, the institution management must also be enhanced and accompanied by an improvement in the academic field. Quality assurance in the field of institution management (X), academics (Y), and customer satisfaction (Z) was significantly different between UIN Malang and ITS. The mean score of the respondents in ITS is higher than in UIN on the three measured variables, either partially or simultaneously.

BIBLIOGRAPHY

Besterfield, D. H. (1999). *Total Quality Management*. Prentice Hall: United States of America.

Bottorf, D. L. (1997). *COQ System: The Right Shuff, Journal of Quality Progress*, March.

Collin and Porras. (2004). *Built To Last: Success traditions Visionary Companies*, Erlangga: Jakarta.

Collin. (1994). *Good to Great,* Harper Collins Publishing Group. New York.

Creswell. (2007). *Research design: Quantitative, qualitative, and mixed methods approaches* (3nd edition.). Thousand Oaks, CA: Sage.

Crosby. (1993). *Quality is Free,* Mc-Graw Hill Book, New York.

Directorate of Higher Education (Dikti). (2003). *Educational Policy.* Jakarta

LPMP (*Education Quality Assurance Institution*) in higher education based on government regulation No. 63. (2009). http://www. Diknas.go.id

Murgatroyd and Collin. (1994). *Total Quality Management and The School*. Open University Pres, Universitas Michigan.

Sallis, E. (1993). *Total Quality Management in Education.* Kogan Page Ltd. London.

Sanusi. (2009). *The 80th of Prof. Achmad Sanusi, Ph.D.* And new publisher undertitle *System Values: Alternative Education Faces.* Bandung: Nuansa Cendikian, 2015.

Solimun. (2002). *Structural Equation Modeling, Lisrel dan Amos*. Malang: MIPA Faculty of Brawijaya University

United Nations Development Programs (UNDP). (2016). Sumber: http://nationalgeographic.co.id/berita/2016/01/undp-indeks-pembangunan-manusia-indonesia-alami-kemajuan.

The Law of National Education System No 20 in 2003, PP (Government Regulation) No 19 in 2005 which was rived by government regulation No 32 in 2013 dan Kepres (President Judgment) No. 65 in 2009 about quality assurance system in PT (Higher Education).

Vincent. (2008). *Total Quality Management.* Gramedia Pustaka Utama: Jakarta.