ROLE OF SERVICE QUALITY AS A MEDIATOR ON ACADEMIC INFORMATION SYSTEM INFLUENCES ON UNIVERSITY STUDENT SATISFACTION

(A Study in High School of Informatics and Computer Management (STMIK) CaturSakti Kendari)

Misriani[1], Asmira[2], Widhi Lestari[3]
[1,2,3]Bina Bangsa High School of Informatic and Computer Management (STMIK) Kendari

Ilin Sukma[4]
[4]Catur Sakti High School of Informatic and Computer Management (STMIK) Kendari

Abstract-This research aims to (1) analyze the influences of information system on service quality, (2) the influences of service quality on university student satisfaction, (3) the influences of information system on university student satisfaction and (4) role of service quality in mediating information system influences on university student satisfaction. Population in the research is 312 people. Determination on the number of sample is by Slovinformula,meanwhile, the sampling is conducted by Proportional random sampling namely taking samples proportionally from the number of university student department. Results of the research are found that; (1) Academic information system influences positively and significantly on service quality. It means better academic information system will lead to better service quality.(2) Service quality influences positively and significantly on university student satisfaction. It means higher level of service quality given to the university students will lead to higher student satisfaction. (3) Information system influences positively and significantly on university student satisfaction. It means better academic information system will lead to higher university student satisfaction, and (4) Service quality mediates academic information system influences on satisfaction by university students of STMIK CaturSaktiKendari.

Index Term :Academic Information System, Service Quality, University Student Satisfaction

———————————— ◆ ————————————

1 INTRODUCTION

Reliability, speed, precision and accuracy of an information system serve as important factors in a system in order to be able to contribute to a better organization in achieving its goals. In order for an information system to operate optimally, it is necessary to evaluate the information system and since there is a great amount of costs spent in applying information technology-based information system.

Development of information systems nowadays has changed the paradigm in the policy making process;in which information systems in various large companies, government agencies, private sectors, universities and various other organizations have led an information system as an accurate media in providing information to various parties in carrying out their tasks. Use of information systems is seen as an effort to provide convenience to users in completion process of their tasks effectively and assisting in operational decision making.

The development of information systems has now reached a remarkable level of acceleration. The development itself, has penetrated almost in all fields, including the field of education. It is necessary for increasingly better changes and developments in the world of education, along with the increasing productivity standards set by a higher education institution.

More complex operational productivity in all organizational activities including university activities with lecture activities, administrative activities and other academic pro-

cesses must be able to improve its service quality to its customers, in this case students, so improved service quality is expected to support and facilitate the activity process in the university in order to achieve student satisfaction towards the service.

System quality means the quality of a combination of hardware and software in information systems. The focus is the system performance itself, which refers to the level of of hardware, software, policy, procedure of information system capabilities in order to provide information on user needs.

Seddon (1997) stated that the use of information systems is a behavior as a result of benefits of using information system. The behavior generated from the use of this information system in the following process is expected to influence on individual performance. Success of an organization information system depends on the system operation run, system ease for its users, and use of the technology used (Goodhue, 1995).

The importance of utilizing information systems in higher education can provide good quality services to students and ultimately create satisfaction. According to Parasuraman, A., Valarie, (2003) to evaluate the quality of customer services generally use 5 dimensions; (1). Tangibles (2).Reliability, (3).Responsiveness (4).Assurance and (5).Empathy. The importance of providing quality service to consumers will have an impact on satisfaction.

According to Kotler (2000) satisfaction is the level of one's satisfaction after comparing perceived performance or results compared to expectations. So, satisfaction or dissatisfaction is a conclusion and interactions between expectation and experiences after using the provided services. There are no easy efforts to realize total customer satisfaction.Mudie and Cottom (2000) stated that total customer satisfaction is impossible, even if only temporarily (Tjiptono, 2007). Satisfaction is a feeling of pleasure, satisfaction of an individual due to fulfillment on the expectations and reality in using and the services provided.

Akinci et al. (2004) argued that there are at least two general formulations about satisfaction, namely first, satisfaction that is felt only in certain transactions, and the second is satisfaction that is felt as a whole or cumulatively. While satisfaction is a result of evaluation on events and behaviors during the existence of a relationship.

An important implication of this definition shows that satisfaction is obtained after a service company provides several meeting services (for example, satisfaction with reception service, service and room services). Furthermore Danaher and Mattson (1994) stated that satisfaction is measured by the services obtained in each transaction. On the other hand, satisfaction as a whole is seen as a function of satisfaction obtained from some services when feeling performance. Thus, overall satisfaction is an evaluative assessment of the outcome of a particular purchase (Bitner and Hubbert, 1994).

The satisfaction of end-user information systems can be made as one measure of the success of an information system (Doll and Torkzadeh, 1988). User satisfaction toward an information system is how users perceive information systems in a real manner, but not on technical quality system (Guimaraes, Staples, and McKeen, 2007).

A research on information system user satisfaction has been conducted by Istianingsih (2007), explaining that service quality and information quality have positive and significant influences on user satisfaction.

This research tries to relate to the phenomena that can be seen in Information and Computer Management High School, hereinafter called as STMIK CaturSaki Kendari. There is an increasingly development of STMIK CaturSaktiKendariHigh School in the last few years. This can be seen from the average number of students entering each year which is very significantly increasing. The development of this institution is inseparable from the active role of management element and public trust in Southeast Sulawesi towards STMIK Catur Saki Kendari.

One of the efforts to maintain the achievement of goals is by making continuous improvements. One form of the improvements is using a system that is referred to as an academic information system SIAKAD in order to facilitate services for all system users both students, lecturers and service units in order to provide satisfaction. Utilization of the SIAKAD Information System has been used by students, lecturers and other service units at STMIK Catur Saki Kendari. The facilities that can be accessed by students, lecturers and service units in the STMIK Academic Chess Kendari Information System are presented in the following table:

Table1.1 Service accessibility of university students, lecturers and Service unit in STMIK Catur Sakti KendariAcademic Information System

No	SIAKAD Access Services	Students	Lecturers	Employee Service Units		
				BAAK	BAUK	PRODI
1	Student Activation				√	
2	KRS Printing	√		√		√
3	Printing of Study Score Cards	√		√		√
4	k Academic Record Printing	√		√		√
5	Course Schedule	√	√	√		√
6	Course Score	√	√	√		√
7	Announcement Access	√		√		√
8	Update of Lecturer Data			√		
9	Update of SAP and GBPP	√	√			

Based on Table 1.1, it shows that every Student, Lecturer and Service Unit have obtained rights of access to utilize the online academic information system but it still has not fully led to satisfaction as desired by the students since in using SIAKAD Academic Information System, there are still limited computer device availability, so the students must be waiting in line to access the SIAKAD. In addition, there are some non-accessible services on information systems, such as thesis title submission services, BAUK service access, lecturerservice access; there is also still low network services; the security system is still weak and various other accesses have not been operated as expected.

In line with a research conducted by Widhi Lestari (2015) confirming that in order to maintain the level of user satisfaction, an information system must undergo continue development according to needs of its users in the future. Hasbi Abdul Muin (2016), examined influences of Hajj Computerized Information System on congregation satisfaction which results of the research confirmed that information system has no influences on satisfaction. This means that information systems are not necessarily able to provide satisfaction for pilgrims; this is caused by some factors, among other it is still frequently caused technical problems in accessing services such as server systems sometimes are slow to respond to necessary access and employee ability to provide the services is still considered less reliable; the information system can also provide reinforcement of satisfaction.

The existence of research phenomena and gaps aforementioned is interesting to study further in order to identify existing problems, especially in STMIK CaturSaktiKendari which relates to the availability of information systems and their relationship with service quality and student satisfaction. This study aims to (1) analyze the influences of information systems on service quality, (2) the influences of service quality on student satisfaction, (3) the influences of information systems on student satisfaction and (4) the role of service quality in mediating the influences of information systems on student satisfaction.

2 LITERATURE REVIEW

2.1 Academic Information System

Arifin, (2002) stated that Academic Information System is a resource for everything in the form of information related to academic issues on campus. An Academic Information System does not only serve as an information resource on campus, it also can be used as a medium of communication between lecturers and students, students with students, lecturers and re-

lated campus officials and anyone in the campus environment. Because using internet technology is not only done on campus but outside the campus, even anywhere in the world as long as there is a computer connected to the internet.

Academic Information System is a web-based information system that aims to form a Knowledge Based System that can be accessed by the internet, for example the types of information contained in it are; (a). news, presenting the latest information published by educational institutions and information technology from various sources of news. (b) education, presenting information related to lectures in educational institutions, such as curricula, lecture units (SAP), lecturers, lecture material, practical works, final assignments and research, (c) community, presenting communities in educational institutions that will inform about the academic community such as staffs, students, alumni, bulletins and others, (d) personal data, presenting information related to students including; KRS and KHS, (e) lecture schedules, presenting lecture schedules, student activities, monitoring on lecturer lecturing schedules, attendance in attending lectures, (f) library, presenting information on books through online catalogs and (e) electronicmail (e-mail) , this facility is to send and receive letters / messages at the same time which can be used as a tool for discussion between students, lecturers and even employees in educational institutions. The measurement of academic information systems includes; (a) usability, (2) capacity, (3). simple and (4). flexible

2.2 Service Quality

Sutanto (2003:146) described that service quality is a fitness for use that aims to find a clear idea of the thought process that creates an understanding that is understandable, because its purpose is clear and the process is continuous quality improvement. Purwoko (2004) further stated that service quality is a perception of quality revolution as a whole that is thought of and becomes an idea that must be formulated (formulation) so that its implementation can be re-tested (evaluation), to become a dynamic process, taking place, continuously in meeting customer satisfaction.

According to Parasuraman, et al. (2003) to evaluate service quality, it generally uses 5 dimensions namely as follows:

1. Tangibles is tangible evidence of care and attention that service providers provide to consumers.
2. Reliability is the company's ability to carry out services in accordance with what has been promised in a timely manner.
3. Responsiveness is the ability of employees to provide services quickly and responsively.
4. Assurance is a guarantee of knowledge and behavior of employees to build trust and confidence in consumers in consuming the offered services.
5. Empathy is the ability of employees to pay attention to consumers individually, including sensitivity to consumer needs.

2.3 Satisfaction

Fennema, O.R. 2008., in. Marcel, (2008; 64) stated that satisfaction is a public response to the fulfillment of needs. This means as an assessment toward a form of privilege of a product or service, leading to a level of convenience related to meeting a need, including needs beyond expectations or meeting needs exceeding the expectations of the community.

Irawan (2003), stated that satisfaction is a feeling of pleasure or disappointment from someone who obtains the impression of comparing the results of service performance with expectations. Tjiptono (2007) argued that satisfaction or dissatisfaction is a response given to customers as a result and evaluation of performance / action mismatches perceived as a result of not fulfilling expectations. This is also stated by Sugito (2005) that the level of satisfaction is a function of the difference between perceived performance and expectations, if the performance is below expectations, the customer will be disappointed.

Student satisfaction with the use of SIAKAD can be measured from the theories presented by Doll and Torkzadeh (1988) including five components: (1) content, concerning the components and substance of the information system in the task of inputting, processing and producing outputs in the form of adequate information. (2) (accuracy), is the data accuracy and suitability of information generated by users' expectations. (3) form, is the appearance of an information system, (4) convenience, concerning the ease of operationalization of the system and procedures for use and (5) timeliness, concerning the effectiveness and efficiency of output that can meet user needs.

Based on the description in the previous chapter, the following research framework is drawn up in Figure 2.1 below:

Figure 2.1Research Framework
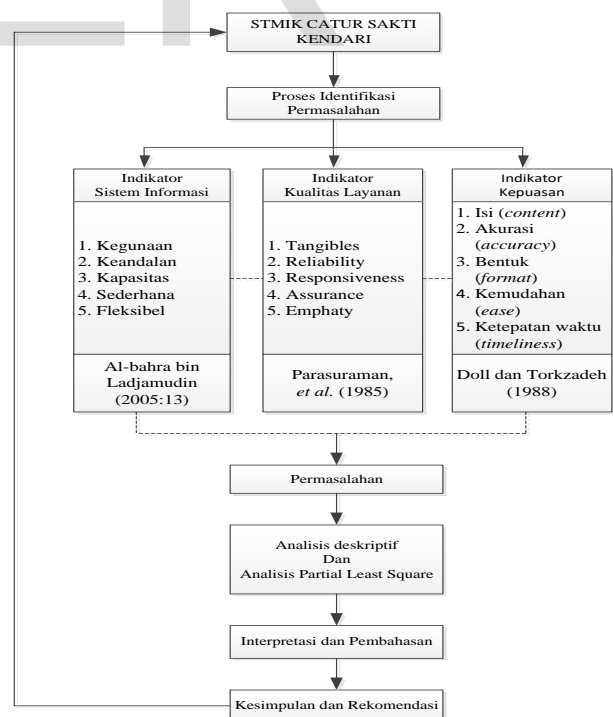
In figure 2.1, the framework of thinking is illustrated by the flow in which the research objects are the implementation of the information system STMIK CaturSaktiKendari and its influence on service quality and student satisfaction. In addition, this study will also examine the mediation role of service quality between the influences of information systems on student satisfaction. The problems will be analyzed using descriptive and inferential statistics with statistical tools. The analysis outputs will be interpreted, making conclusion and recommendation.

3 CONCEPTUAL FRAMEWORK AND HYPOTHESES

3.1 Conceptual Framework

The success of a company's information system depends on operation of the system, easiness of the system for its users, and use of the technology (Goodhue, 1995). The satisfaction of end-user information systems can be used as one measure of the success of an information system (Doll and Torkzadeh, 1988).

This study will determine the influences of information systems and service quality on the satisfaction of STMIK CaturSaktiKendari students. The intended Information System is the SIAKAD required by students. The intended service quality is good service given by employees / staffs in student services. Through good information system and good service quality, there will be students' satisfaction.

This research consists of 3 variables, namely Information System Variable, Service Quality Variable and Satisfaction Variable. Development of the conceptual framework refers to previous research, namely the influences of the variables from previous studies namely (Widhi Lestari: 2015) Information System Variable on Positive and Significant Service Quality Influences, Diman(2006) Service Quality Variable influences on information system user satisfaction, and Reza Wahyudiet. al. (2013) Information system variable has positive and significant influenceson satisfaction. Furthermore, a research by Hasbi Abdul Muin(2016) revealed that service quality is a mediating variable of the influences of information systems on satisfaction.

The picture of the conceptual framework is as shown in the following figure.3.1:
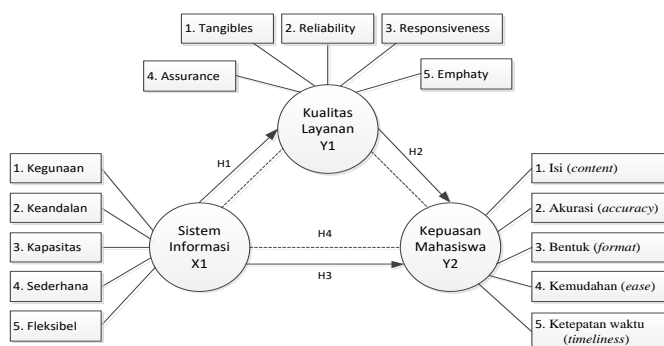
Gambar 3.1. Kerangka Konseptual

3.2 Research Hypotheses

Based on the background aforementioned, then the research hypotheses are as follow:

H1 There are influences of Information on service quality
H2 There are influences of service quality on satisfaction
H.3 There are influences of information system on satisfaction
H4. Service Quality plays a role in mediating influences of information system on satisfaction

4 METHOD

The objects of this research are academic information system, service quality and satisfaction of STMIK CaturSaktiKendari Students. The types of data and sources of data used in this study are primary data including data related to the statements of respondents to these study variables, namely information systems, service quality and satisfaction.

The population in this study is 312 people consisting of two departments namely information systems and computer systems such as in the following table:

Table 4.1 Number of STMIK CaturSaktiKendari Students

Year of study	Department of Information System	Department of Computer System	Number of Students
2013	37	30	67
2014	45	37	82
2015	53	35	88
2016	46	29	75
Total			312

Source: siakad.catursakti.ac.id

Sampling is used Slovinformula so the number of sample is 76 people.

The sampling is conducted by proportional random sampling which is to take samples proportional of the number of students per class, so that representation of the samples is based on the number of population of each generation, then the distribution of respondents is presented in Table 4.2

Table 4.2 Number of Samples

No	Year of study	Population	Samples
1	2013	(67/312)*76	16
2	2014	(82/312)*76	21
3	2015	(88/312)*76	25
4	2016	(75/312)*76	18
Total			76

In this study data analysis will use descriptive and qualitative statistical techniques. According to Sugiyono (2012: 148) descriptive statistics are the ways used to analyze data by describing or interpreting data, it is also used quantity analysis using the Smart PLS program Partial Least Square Analysis tool Version 3.2.4

5 RESULTS AND DISCUSSION

5.1 Results of Testing on Structural Model and Research Hypotheses

The structural model of the inner model is evaluated by determining the value of the path parameter coefficient between the latent variables. Structural model testing (inner model) is conducted after the relationship model is built in this study, in accordance with observational data and suitability of the overall model (goodness of fit model). Testing on the structural relation model is to determine the influences of latent variables designed in this study. From PLS outputs, testing structural models and hypotheses are conducted by determining the estimated path coefficient and the critical point value (t-statistic) which is significant at p-value <0.05. The results of complete data analysis can be seen in the outputs of the PLS model.

Testing hypotheses and path coefficients of direct influence between academic information system variables. Results of the testing on the direct influences can be seen from the value of the path coefficient and critical point (CR *) which is significant at α = 0.05 which is presented in the path diagram in Figure 5.1
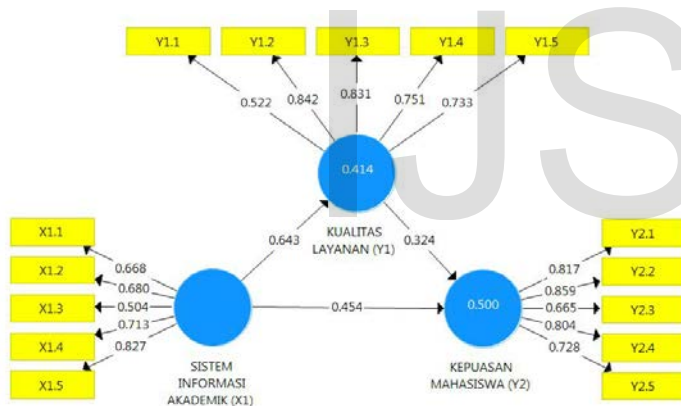
Source: PLS processing results, in 2017

Figure 5.1 shows that from the 3 direct influences between the tested variables have positive influences, namely: (1) the academic information system variable on service quality influences on service quality with the resulting path coefficient value of 0.643. This shows that an increase in academic information systems is followed by an increase in good service quality, (2) academic information system variable has positive influences on student satisfaction, the results of the path coefficient show a positive value of 0.454. This reveals that academic information system has a direct relationship with student satisfaction and significant influences. (3) service quality has positive influences on student satisfaction with a path coefficient value of 0.454. The testing results of the direct influences completely are presented in Table 5.13

The testing results of the direct effect completely are presented in Table 5.1

Table 5.13. Direct Influence Path Coefficient and Hypotheses Testing

Hypotheses	Direct Influences	Path Coefficient	P-value
H1	Academic Information System (X1) ---> Service Quality (Y1)	0,6435	0,000
H2	Service Quality (Y1) -->Student Satisfaction (Y2)	0,3235	0,006
H3	Information System >Student Satisfaction	0,4543	0,000
H4	X1Academic Information System → Service Quality (Y1) →Student Satisfaction (Y2)	0,208	0,008

Source: Analysis Results of Partial Least Square

Based on the research results, the testing of direct influences and research hypotheses aims to answer whether the proposed hypothesis can be accepted or rejected. The testing results of the direct influence hypothesis can be explained as follows:

H1 Academic Information System Influences positively and significantly on Service Quality.

Based on Table 5.13, H1 hypothesis testing shows that academic information system has positive and significant influences on service quality. This is evidenced by statistical tests which show the path coefficient value (original sample estimate) of 0.6435. This result is supported by the value of t-Statistic 10.7267 which is greater than the t-Table value of 1.96 and the significant level of p-value 0.000 (p <a = 0.05). This shows that an increase in academic information systems influences on the service quality to students so that the first hypothesis submitted is acceptable.

H2 Service Quality influences positively and significantly on satisfaction

The H2 hypothesis testing shows that service quality has significant influences on student satisfaction. This is evidenced by statistical tests that show the path coefficient value (original sample estimate) of 0.3235. This result is supported by the value of t-statistics of 2.7571 which is greater than the t-Table value of 1.96 and significant level of p-value 0.0060 (p <a = 0.05). This means that improvement on the service quality is followed by increased student satisfaction. Thus, the second hypothesis proposed in the study is acceptable.

H3 Information System has positive and significant influences on satisfaction

The H3 hypothesis testing shows that academic information system has positive and significant influences on student satisfaction. This is evidenced by statistical tests that show the path coefficient value (original sample estimate) of 0.4543. This result is supported by the t-table value of 3.9013 which is greater than the of t-Table value of 1.96 and significant level of p-value 0.0001 (p <a = 0.05). This means that an increase in academic information systems is followed by an increase in student satisfaction. Thus, the third hypothesis proposed in the study is acceptable.

H4 Service Quality plays a role in mediating the influence of academic information system on satisfaction

The H4 hypothesis testing shows that service quality is significant in mediating the influences of academic information system on student satisfaction. The following are the results of the online Sobeltest. The results of the Sobeltest show that Service Quality mediates the influences of information system on student satisfaction as evidenced by the p-value of 0.0006 <alpha value of 0.05. And value for t-statistic> 1.96. Based on this, hypothesis 4 is acceptable.

5.2 Discussion of Research Results

5.2.1 Academic Information System Influences on Service Quality

Results of the study show that information system has significant influences on service quality. This means that the influences are in the same direction, namely better application of information system will lead to increased service quality for STMIK CaturSaktiKendari students. Based on the measurement results of the model as presented in Table 5.10, it can be seen that there are five valid information system indicators used to reflect the measurement of academic information system variables. This is evidenced by the estimated value of the outer loading of the five variable indicators which overall have a value greater than 0.50. (Ghozali, 2015). Therefore, the correlation between the overall five indicators is positive and significant in reflecting the Academic Information System variable.

If we determine the estimated outer loading value, the flexible indicator is the most powerful indicator in reflecting the academic information system variable, because it has the largest outer loading, it is reflected that the academic information system is flexible to present reports and the system is easy to use. And the results of student perceptions on flexible indicators are also considered to be strong. This can be interpreted that academic information system (SIAKAD) has been able to provide appropriate services that are required by students and the information system has been fully capable of being operated by students based on available menu systems.

Furthermore, the estimated value of outer loading for the Simple indicator is also strong in reflecting information system variable but is still perceived low by students so that this is considered to be a priority for students to be further improved so that the system is easy to modify and software can be used easily. Out of the five information system variable indicators,based on the respondents' assessment, the capacity indicator is assessed as the lowest one since the academic information system (SIAKAD) is still less inadequate in terms of data storage and internet access speeds which are often down and based on estimation outerloading, the capacity indicator has also low level. So,it is necessary for STMIK CaturSaktiKendari to increase storage capacity and increase the speed of internet access by increasing its bandwidth so that it can improve service quality in the future.

The test results with Partial least Square find out that the Academic Information System has positive and significant influences on service quality. It can be interpreted that the Academic Information System (SIAKAD) has been flexible to present reports; the system is easy to operate; the system is easy to modify; the software can be used easily and according to existing needs and in accordance with its functions; the information generated by the application can be trusted and the software is used without any significant errors in the long term. All of which are in line with a research conducted by Widhi Lestari (2015), stating the Influences of Information Systems on Service Quality and student satisfaction, which confirmed that the information system has positive and significant influences on quality service and student satisfaction. A research by Widhi Lestari also confirms that in order to maintain the level of service quality, there must be sustainable development on the information system according to the needs of users in the future. However, overall respondents' perceptions toward the existing information system are good and in accordance with the needs of the academic.

From some opinions above, it can be seen that user satisfaction (students) plays a very important role in an educational institution, one of them is university. Quality service is absolutely necessary to meet student expectations; better quality of the information system provided by high schools for the students will also provide various benefits to other high schools.

5.2.2 Academic Information System Influences on Student Satisfaction

Results of the study show that information system has significant influences on student satisfaction. This means that the influences are in the same direction, namely better application of information system will lead to increased student satisfaction for STMIK CaturSaktiKendari students. Based on the measurement results of the model as presented in Table 5.10, it can be seen that there are five valid information system indicators used to reflect the measurement of academic information system variables. This is evidenced by the estimated value of the outer loading of the five variable indicators which overall have a value greater than 0.50. (Ghozali, 2015). Therefore, the correlation between the overall five indicators is positive and significant in reflecting the Academic Information System variable.

If we determine the estimated outer loading value, the flexible indicator is the most powerful indicator in reflecting the academic information system variable, because it has the largest outer loading, it is reflected that the academic information system is flexible to present reports and the system is easy to use. And the results of student perceptions on flexible indicators are also considered to be strong. This can be interpreted that academic information system (SIAKAD) has been able to provide appropriate services that are required by students and the information system has been fully capable of being operated by students based on available menu systems.

Furthermore, the estimated value of outer loading for the Simple indicator is also strong in reflecting information system variable but is still perceived low by students so that this is considered to be a priority for students to be further improved so that the system is easy to modify and software can be used easily. Out of the five information system variable indicators, based on the respondents' assessment, the capacity indicator is assessed as the lowest one since the academic information system (SIAKAD) is still less inadequate in terms of data storage

and internet access speeds which are often down and based on estimation outerloding, the capacity indicator has also low level. So, it is necessary for STMIK CaturSaktiKendari to increase storage capacity and increase the speed of internet access by increasing its bandwidth so that it can improve service quality in the future.

The test results with Partial least Square find out that the Academic Information System has positive and significant influences on service quality. It can be interpreted that the Academic Information System (SIAKAD) has been flexible to present reports; the system is easy to operate; the system is easy to modify; the software can be used easily and according to existing needs and in accordance with its functions; the information generated by the application can be trusted and the software is used without any significant errors in the long term. All of which are in line with a research conducted by Wahyudiet. al(2013). The research used a model referring to the Update D & M IS Success Model. The variables taken in this study included system quality, information quality, service quality, and student satisfaction. The research method used was explanatory research. Location of research was at the Faculty of Administrative Science, Brawijaya University, Malang. The research object is SIAKAD users namely university students. There were samples by 89 students from a population of 843 student in which the study stated that system quality, information quality, and service quality factors had positive and significant influences on student satisfaction.

In general, the academic information system that provides various information for the needs of students is considered to be good. And there must be continuos maintenance and improvement so that SIAKAD is able to provide good satisfaction. Therefore, it is neessary for STMIK CaturSaktiKendari to improve the factors that are still perceived to have low level and good enough level by the students in order to lead ability to provide satisfaction beyond the student expectations so that it ultimately will increase the public interest to study at STMIK CaturSaktiKendari in the future.

5.2.3 Service Quality Influences on Student Satisfaction

Several aforementioned studies describe that service quality has positive and significant influences on increased satisfaction. Based on the results of interviews with students, most of them consider the benefits after using the academic information system (SIAKAD) and there has been good service provided by the service unit to the students.

After observing the estimated outer loading value, out of the 5 indicators, the reliability service quality variable is the most powerful indicator in reflecting service quality variable but the results of student perceptions on the reliability indicator is still considered low.This can be interpreted that it is still necessary to improve the reliability indicator of the application providers;it is still necessary to provide clearer instructions when there are any errors on the system and the service unit is expected to be faster in responding to students' expectation, then the response indicator is the second highest based on the estimation of outer loading and student perceptions; this means that students are satisfied with the speed of services provided; the assistance provided by the service units is

considered to be good and there have been attention during rush hour.

The assurance indicator is not a priority when compared to other indicators by the students based on the estimated outer loading. However, it is considered the best based on student perceptions of assessment so that the assurance indicator indicates students' trust at skills and capability of service units in carrying out their duties and responsibilities; students feel safe in making any transactions in academic information systems (SIAKAD) and students believe that if students face any problems in accessing the academic information system, the management unit will always be ready to provide assistance and ultimately, it is necessary for sustainable maintenance and improvement on the management of STMIK so that student satisfaction is higher.

Furthermore, the empathy indicator is the lowest priority indicator based on the student assessment and is perceived low by students. This means that service units are less sensitive to the problems faced by students and the services of service units have not maximally fulfilled student expectations. Therefore, it is necessary for STMIK Catur Sakti Kendari to make improvements to its service units by applying more maximal rules to the service units, such as giving a suggestion box as a feed back for the provided services, as well as conducting an academic dialog to listen to any student aspirations related to the service quality.

The test results with Partial least Square show that Service Quality has positive and significant influences on student satisfaction. This is reflected in the fact that the service unit has used the most recent hardware to support the access speed for the academic information system; SIAKAD has an attractive visual appearance; the application providers are reliable; the system provides instructions if something goes wrong; the service unit responds quickly to students' needs; there is satisfaction with the speed of service;there has been assistance given during rush hour and the skills of service units for the students are quite satisfying. This is in line with a research conducted by Zanial (2012) on an analysis of the influence of computer-based information system service quality on user satisfaction at BinaDarma University. The influences of service quality on academic information systems are projected into 3 components, namely relevance, accuracy and responsiveness. The quantitative analysis carried out in the BinaDarma University environment is positive and significant.

In general, the service quality at STMIK CaturSaktiKendariis considered good by the students. And there must be sustainable maintenanceand improvement so that the service quality is able to provide good satisfaction to students.Therefore, it is necessary for STMIK CaturSaktiKendari to increase any factors that are still perceived to have low level and good enough by the students so that it can be able to provide satisfaction beyond student expectations and there will be further improvement in the future; there will be increasing interest of the community to study at STMIK CaturSaktiKendari and STMIK CatruSaktiKendari can increase the level of accreditation which ultimately it can create alumni who are in line with the expectations of the government and able to compete in the world of work

5.2.4 Role of Service Quality in Mediating Academic Information System Influences on Student Satisfaction

The testing results of the previous hypothesis (H2) find out that academic information system significantly influences on student satisfaction. Furthermore, the testing is conducted by adding service quality variable as a mediator on the relationship of academic information systems and student satisfaction which is then proposed as the fourth hypothesis (H4) in this study namely service quality serves as a mediating variable of the academic information system influences on the satisfaction of STMIK Catur Sakti Kendari students.

The testing results of the fourth hypothesis (H4) that service quality plays a role in mediating academic information system on student satisfaction (H4 is accepted). Thus, the results of this study can prove that the service quality mediates the academic information system towards the satisfaction of STMIK CaturSaktiKendari Students. The path coefficient value indicates an increase compared to the direct influences.

Based on empirical facts, it is found that the indicators of usability and flexibility of the system are the best indicators of the Academic Information System in STMIK CaturSaktiKendari. The results of the interviews conducted with several people reveal that the available SIAKAD has been accordance with the needs and been well-functioning; there isalso easy procedure for presenting reports.

The high appreciation of students towards the Information System on STMIK CaturSaktiprovides influences on increasing student satisfaction as reflected through an indicator of feeling satisfied while operating the system;there is also a immediate understanding toward the available menus in the SIAKAT; the SIAKAT display models have attractive display color variations.

All of which reveals that better Academic Information System willlead to higher student satisfaction. However, there are still some student satisfaction indicators with still quite low level that are assessed by the students. Based on the theoretical references used in this study, it is explained that the low level of student satisfaction is caused by inadequate service quality, so in order to provide a high level of satisfaction to the students, it is necessary to determine the level on how the Academic Administration System has influences on the service quality in order to provide better student satisfaction.

The study results reveal that the service quality is the mediator variable of the Academic Information System influences on the student satisfaction. This means that through the existence of good service quality, it will provide better influences on student satisfaction.

These study results are in line with a research conducted by Hasbi Abdul Muin (2016), examining the influences of Computerized Information Systems on the satisfaction of pilgrims.The research results confirm that information systems do not influences on the satisfaction of pilgrims. This means that the information system is not necessarily able to provide satisfaction to pilgrims and this is caused by frequent technical problems in accessing congregational services such as server system sometimes are slow to respond to any required access and the ability of Ministry of Religion employees to provide services are still considered to be less reliable. It is also found a service quality variable mediating the influences of the Hajj Computerized System (SISKOHAT) on the satisfaction as measured by indicators: (a) Expectations on product / service performance, (b) Achievement of product / service performance, (c) Conformity to product / service performance, (d) Satisfaction with the performance of service quality products / services.

6 CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Based on the research results, so, it can be formulated the following conclusion:

1. Academic Information System has positive and significant influences on service quality. This means that better academic information system will lead to better service quality.
2. Service quality has positive and significant influences on student satisfaction. This means that higher service quality given to the students will lead to higher student satisfaction.
3. Information system has positive and significant influences on student satisfaction. This means that better academic information system will lead to higher student satisfaction.
4. Service quality mediates the influence of the Academic Information System on the satisfaction of STMIK CaturSaktiKendari students.

6.2 Recommendation

Based on the research results and conclusion, it can reveal suggestions to be these following research recommendation:

1. In general, the academic information system that provides various information for student needs is considered to be good. However, it is still necessary for maintenances and improvement so that the academic information system is able to provide better service quality. Therefore, it is necessary for STMIK CaturSaktiKendari to improve the capacity of information system capacity and increase access speed more adequately because this indicator is a dominant factor that reflects academic information systems and it is still assessed with low level by the students compared to other indicators.
2. In general, students are satisfied with the services of the academic Information System, but the satisfaction is not optimal. It is still necessary for STMIK Chess SaktiKendari to improve the system so that it can reduce the occurrence of system disruptions and down systems which make it difficult for students to access information in academic information systems.
3. It is necessary to improve the service quality of the STMIK CaturSaktiKendariservice unit in the form of more reliable application providers; the system is more detailed in providing guidance whenever facing any errors and the service units are expected to respond more quickly to student needs so that students can feel satisfaction using academic information system.

REFERENCE

[1]   Agus Mulyanto. 2009. Information System Concept and Application. PustakaPelajar. Yogyakarta

[2]   Akinci, S., Safak, A., andEda, A. (2004), Adoption of Internet banking among sophisticated consumer segments in an advanced developing country, The International Journal of Bank Marketing, Vol. 22, No. 3, pp. 212-232.

[3]   Arifin, A. (2002). MembacaSalaham. Yogyakarta :Andi.

[4]   Bitner, MJ and Hubert AR. (1994).Encounter Satisfaction versus Overall Satisfaction versus Quality, in Rust, R.T. & Oliver, R.L. (Eds), Service Quality: New Direction in Theory and Practice, Sage, London.

[5]   Danaher, P. J., &Mattsson, J 1994. Customer SatisfactionDuring The Service Delivery Process.European Journal of Marketing :5-6.

[6]   Doll, W.J., and Torkzadeh, G. 1988.The Measurement of End User Computing Satisfaction,MIS Quarterly, 12(2): 159-174.

[7]   Fennema, O.R. 2008. Food Chemistry Fourth Edition. New York: Marcel Dekker, Inc

[8]   Goodhue, D.I and Thompson. R. L. 1995. "Task –Technology and Individual Performance".Mis Quarterly, Juni 213-236

[9]   Ghozali, Imam. 2015. Multivariate Analysis Application by SPSS program, Publishing Agency of Diponegoro University, Semarang.

[10]   Guimaraes, T., D. S. Staples, and J. D. McKeen. 2007. Assessing the Impact From Information System Quality. Quality Management Journal 14, No. 1: 30- 44.

[11]   Hasbi Abdul Muin "Influences of Integrated Hajj Computerized Information System on Satisfaction of JamaahThrough Service Quality. Postgraduate Student Thesis STIE Enam Enam Kendari, 2016

[12]   Irawan and Dharmesta B.S. 2003.Modern Marketing Management. Yogyakarta: Liberty.

[13]   Istianingsih and Wijanto, SetyoHari. 2007. Influences of Information System Quality, Perceived Usefulness, and Information Quality on Accounting Software End User Satisfaction. SNA Vol. XL. Pontianak: National Accounting Symposium.

[14]   Kotler, Philip, (2000), Marketing Management, PT. Prenhallindo, Jakarta.

[15]   Mudie, Peter and Angela Cottam, 2000, The Management and Marketing of Service. Oxford: Butterworth-Heinemann LTD

[16]   Seddon.P.B 1997.A Respecipication and Extension of The DeLone and McLean's Model of IS Success, Information System Research, 8 : 240-250. 33

[17]   Tjiptono, Fandyand Diana Anastasia (2007) Total Quality Managemen, Yogyakarta : Andi

[18]   WahyudiKumorotomoandSubandoAgusMargono. (2009). Management Information Systems in Public Organizations

[19]   Widhi Lestari, "The Influences of Information Systems and Service Quality on Student Satisfaction (A Study in STMIK of Bina-BangsaKendari)". Postgraduate Program Halu Oleo University, Kendari 2015.