HIGH EDUCATION GOVERNANCE BASED ON MANAGEMENT INFORMATION SYSTEM AT HASANUDDIN UNIVERSITY

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ABSTRACT

This study aims to find, analyze, and describe system quality, information quality, and service quality in the Management Information System (SIM) at Hasanuddin University. This type of research is an exploratory research with a qualitative approach by conducting in-depth interviews with university managers and users as well as participatory observations on the practice of using SIM which are analyzed through interactive analysis techniques through the stages of data reduction, data presentation and conclusions. The results of the study show that the quality of the system in the Hasanuddin University SIM in general has met the quality aspects of the system which are easy to use, easy to understand, as needed, and accurate. However, the Hasanuddin University SIM is not optimal from the aspect of completeness of features; system flexibility, and system integration. The quality of information in the Hasanuddin University SIM is not yet available in full and has not been presented in a concise manner, but the information presented increases the quality of benefits for users, understanding of information, relevance and accuracy of the format. The quality of service in SIM has not been able to increase the sense of empathy of service providers but can increase reliability, portability, understanding, maintenance of data and information, economic and service certainty.

Keywords: High education governance, management information systems, academic, non-academic.

INTRODUCTION

The international modernization movement was marked by the birth of new public management that began in the Anglo-Saxon world and found its relationship with reinventing government in the United States and has now spread to the continent of Europa to influence the German legalistic bureaucracy in the form of the *Neue Steuerungsmodell* (new steering model) (König, 1998). This movement aims to improve the economic efficiency of the state and administration by presenting two main perspectives, namely: first is the transfer of responsibility for actions in the social territory from the state to the market, for example through privatization of resources, and second is internal rationalization through the public sector based on movement to increase efficiency economy on administrative action.

This development turned out to be followed also followed by modernization and reform of the governance of universities in Europe. Ferlie et al (2008), noted that in the United Kingdom since the 1980s along with the massive paradigm of the new public management it has had an impact on higher education governance reform from the bureau professionalism towards new public management as in other public services in the United Kingdom (Paradeise et al 2009).

The paradigm shift in managing the university emphasizes the giving of autonomy to universities to manage resources and start cutting costs from the government towards universities. Reform and modernization of education management is then known as good university governance as the actualization of the concept of good corporate governance. that the implementation of Good Corporate Governance at universities can be seen from aspects of transparency, accountability, responsibility, independency, and fairness (Wijatno, 2009).

The reason for the transformation of the tertiary institution is the existence of challenges such as the beginning of reduced government support in financing, local and national issues, so that universities must have the ability to operate efficiently, effectively and responsibly (Hyat, 2015). Two things are the reasons why the application of information systems is a must for every organization. First, how much organizational dependence on the existence of information technology in the creation of daily products or services, and second, depends on how much the development of information technology can create or enhance competitive advantage (McFarlan & McKenney, 1983). In the theory of technological determinism confirms that any new findings in information technology will be adopted by the public administration if this will have a positive impact.

Dey & Sobhan (2008), stated that many universities use information and communication technology to improve university activities in the fields of teaching, learning, research and development, administration, and others. To measure the success of the college governance system based on management information systems, the successful information system model DeLone and McLean (1992), provides a good conceptual framework to describe the success of information systems-based tertiary governance. This model is further refined by DeLone and McLeand (2003) as the latest successful information system described as follows:
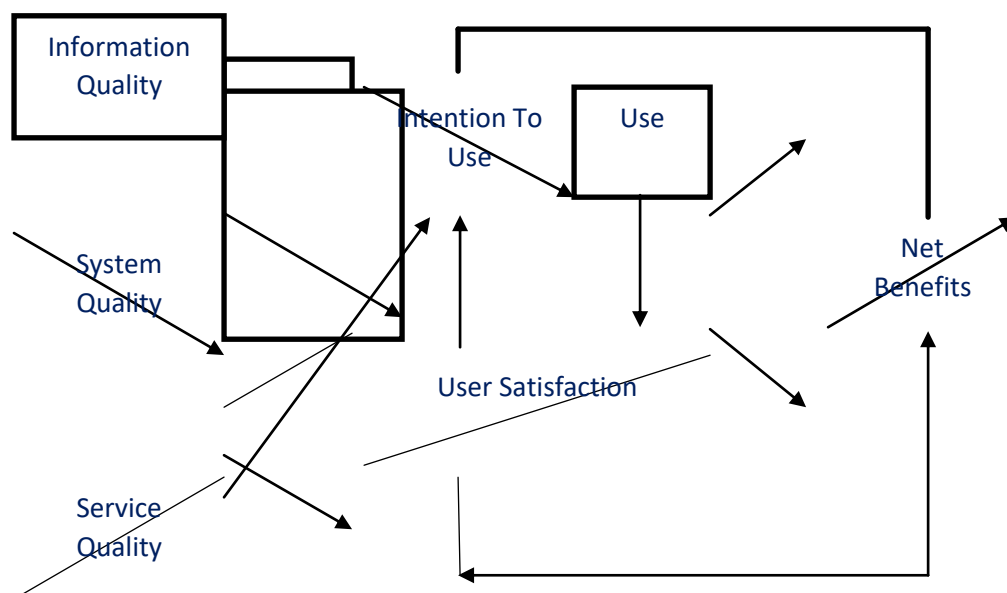

Figure 1. Model of a Successful Information System (DeLone & McLean, 2008).

Explanation of the main aspects and measuring the components in the information system model, namely (1) Quality of the system, the desired characteristics of an information system. For example: ease of use, system flexibility, system reliability, and ease of learning, as well as intuitive system features, sophistication, flexibility, and response time. (2) Quality of information - desired characteristics of the output system; namely, management reports and

website pages for example: relevance, accuracy, conciseness, comprehensiveness, currency, timeliness, and usability. (3) Quality of service - the quality of support that system users receive from the IS and IT departments supporting personnel. For example: response, accuracy, reliability, technical competence, and empathy from personnel staff. (4) Use of the system - the level and manner in which staff and customers utilize the capabilities of an information system. For example: number of uses, frequency of use, nature of use, accuracy of use, level of use, and purpose of use. (5) User satisfaction - the level of user satisfaction with reports, websites, and support services. For example, the most widely used multi-attribute instrument is to measure the satisfaction of information users. (6) Net profits, the extent to which information systems contribute to the success of individuals, groups, organizations, industries, and nations. For example: increased decision making, increased productivity, increased sales, reduced costs, increased profits, market efficiency, consumer welfare, job creation, and economic development.

This study aims to describe the quality of management information systems in academic and non-academic governance at Hasanuddin University that are focused on system quality, information quality, and service quality.

METHODOLOGY

This study uses a type of case study research with qualitative research design with organizational analysis unit, Hasanuddin University in utilizing Management Information Systems in academic and non-academic governance. This study focuses on three aspects of the quality of management information systems, namely system quality, information quality and service quality by conducting in-depth interviews with leaders, managers of academic and non-academic activities, students and lecturers and alumni of Hasanuddin and participatory observations and documentation studies. The results of the research data are then analyzed using interactive analysis techniques Miles and Huberman (1992), namely data reduction, data presentation and conclusion and testing the validity of the data.

RESULTS AND DISCUSSION
System Quality in Management Information System at Hasanuddin University
System quality is a characteristic of information systems or the quality of information systems processing itself which includes software and data components (DeLone & McLean, 1992; Gorla et al. 2010). The aspects seen from the quality of this system are aspects of ease of use, ease of learning, user needs, complete system features, system accuracy, flexibility, sophistication and integration. The results showed that of the eight aspects of system quality in management information systems used in the governance of academic and non-academic activities, there were five aspects that were assessed to be optimal, namely (1) ease of use, (2) ease of learning, (3) suitability for needs, (4) system accuracy and (5) system sophistication. While the three non-optimal aspects of the Hasanuddin University SIM are aspects (1) complete features, (2) system flexibility and (3) system integration between units and banking are described in the following table.

Table 1. System Quality in SIM at Hassanuddin University

Focus	Aspect	Research Findings
System Quality	Ease of use	The system is easy to use because of the simple features and availability of initial data
	Ease of learning	The system is easy to learn because of its simple features, suitability to the type of task and the use of instructions
	Conformity with Needs	The system has features that have been divided according to the type of task manager and type of service, however there are still needs of users who have not been accommodated
	Features	Do not have complete features due to the needs of users who have not been accommodated.
	Accurate	The system produces accurate data / information
	Flexible	The system has not been flexible, among others: monitoring lectures, active students, academic leave, grade recap, semester registration, prospective new students re-registration, late and delinquent SPP payments.
	Sophistication	It's quite sophisticated because it can be accessed quickly, anytime and anywhere.
	Integration	SIM is not fully integrated between work units and banking

Based on the Shannon and Weaver models, the quality of this system is categorized as a level of information at the technical level, namely the quality of the system that produces information (Ritchie, 1986). This, as stated by Gorla, et al. (2010), suggests that a system that is well designed, developed and implemented is a prerequisite needed to benefit the organization.

The results of the study show that overall, the quality of the system developed at Hasanuddin University has been quite good, because of the eight aspects assessed, five of them are considered appropriate and optimal. But three of them are not maximal, namely features, system flexibility and integration. Al-Mamary, et al. (2014) in their study found that a quality system had a significant impact on the acceptance of the system and also on the effectiveness and efficiency of the organization. Gorla, et al. (2010) stated that system quality is positively related to the quality of information and its impact on the organization.

The concept of integration is also known as the "One Stop" portal which provides a comprehensive and integrated service menu tailored to user profiles (Khazaei & Akhgar, 2016). argues that the concept of online one stop government requires all government authorities to be interconnected and citizens can access public services from one point only (Wimmer & Tambouris, 2002). In the context of higher education governance at Hasanuddin University, integration must be carried out immediately between work units and banks.

Information Quality in Management Information System at Hasanuddin University
Information quality refers to the quality of output produced by information systems (DeLone and McLean, 1992). This study focuses on a number of aspects of information quality in academic and non-academic governance at Hasanuddin University, namely aspects of

information availability, information usefulness, information comprehension, relevance, format and conciseness. Resume of research research results appears in the following.

Table 2. Information Quality in SIM at Hasanuddin University

Focus	Aspect	Research Findings
Information Quality	Information Availability	Availability of information is not comprehensive because the SIM feature is not complete
	Use of information	Information from SIM is useful for managers and users
	Information Understanding	Information from SIM is easy to understand
	Relevance	Information from SIM is relevant to the type of task manager and user service needs.
	Format	Information format is appropriate.
	Brevity	Information conciseness is not yet available properly.

Clikeman (1999), argues that information system processing is similar to production processes in manufacturing organizations. If the product (information) is not sent on time (timeliness) and the product (information) does not match the needs (relevance) of the user or customer, the customer will be dissatisfied and the company will lose business. The results of the above study indicate that of the six aspects seen from the quality of the information system, there are four aspects that are considered to be optimal, namely the usefulness of information, understanding, relevance and format. While the two aspects found were not optimal, namely the completeness of information and conciseness of information.

One of the information completeness is caused by the information system feature that is not yet complete or has not accommodated all academic and non-academic governance needs at Hasanuddin University. Redman & Mathews (1998), emphasizes that data quality is at the heart of the quality of information where poor quality data results in poor quality information. Gorla, et al (2010), stated that at the operational level, customers would be dissatisfied and employees would lack job satisfaction because of inaccurate or incomplete information. At the tactical level, the quality of decision making will be affected by irrelevant information.
The selection and implementation of a sound business strategy will be difficult because information is inaccurate or delayed. In the context of academic and non-academic governance at Hasanuddin University, the quality of information presented through information systems fosters satisfaction for managers and users (students, lecturers, alumni) to the decision-making process.

Service Quality in Management Information System at Hasanuddin University
Service quality is the level of irrationality between the normative expectations of users / customers of services and their perceptions of service performance (Gorla et al., 2010). The results of the study indicate that service quality has increased with the existence of an information system when viewed six aspects of service quality as shown in the following table.

Table 3. Service Quality in SIM at Hasanuddin University

Focus	Aspect	Research Findings
Service quality	Reliability	More reliable service
	Portability	Services are more portable or dynamic in terms of place and time
	Empathy	Has not increased the empathy of service providers
	Maintenance	Information services via SIM are safe and can be reused at any time
	Economical	More economical service
	Certainty	More definite service.

The results showed that the use of information systems improved the quality of academic and non-academic services at Hasanuddin University which were more reliable, portable, maintaining service quality, economy and certainty. The results of this study support the opinion of Gorla, et al. (2010), suggesting that services through information systems are sent on time and with error-free performance and will produce timely and efficient decision making. However, the results of the study show that the use of information systems in academic and non-academic governance at Hasanuddin University has not been able to change the attitude of empathy for service providers, because this relates to the mindset and cultureet that has been formed in the thinking and behavior of educational staff. For this reason, policies and programs are needed to encourage changes in the mindset and culture of education personnel to be in line with changes in information technology that are more accurate, efficient, and effective.

CONCLUSION

The quality of the system in the Hasanuddin University SIM in general has met the quality aspects of the system which are easy to use, easy to understand, as needed, and accurate. However, SIM Hasanuddin University has not been optimal in terms of features, system flexibility and system integration between work units and banking. The quality of information in the Hasanuddin University SIM is not yet available in full and has not been presented in a concise manner, however the information presented increases the quality of benefits for users, understanding of information, relevance and accuracy of the format. The quality of service in SIM Hasanuddin University has not been able to increase the sense of empathy for educational staff, especially in academic governance but can improve reliability, portability, data maintenance, economic, and service certainty.

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