



Digital-Based Academic Management Service : A Case Study in Open University

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Abstract: This study aims to analyze the digital-based academic management services for students of the Open University Elementary School Teacher Education study program. This research approach is qualitative with a case study method. The subject of this research is students and the head of the tertiary institution. Data collection was carried out using documents, observations, questionnaires and interviews. Data analysis refers to qualitative research. The results showed that 1) OU's planning management is considered very good for the process of providing the education needed by students. 2) OU coordinates and places the right people in every part needed in the implementation of education at OU so that the academic services provided to students can be maximized and meet student needs. 3) The implementation of OU's service management is carried out by the operational procedures set by OU. OU is developing and improving the quality of management to provide excellent service to students. 4) The evaluation management that OU already has also shown an evaluation process that is systematic and by the procedures owned by OU in providing services to students.

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Introduction

Technology has provided the provision of education such as the implementation of distance education or the management of educational institutions (Choudhury et al., 2023). One of the educational institutions that provide distance education processes using digital technology for all aspects of education management is the Open University (OU) which is the only state university in Indonesia that implements a distance learning system (Islam & Mahmudul, 2016). OU was established to expand study opportunities at tertiary institutions for high school graduates and the equivalent without age and diploma year restrictions. The flexibility of the OU learning system causes OU students to tend to have very varied ages, educational backgrounds, and socioeconomic backgrounds. OU implements a distance and open learning system. The term distance means that learning is not carried out face-to-face, but uses media, both printed media (modules) and non-printed (audio/video, computer/internet, radio broadcasts, and television). The open meaning is that there are no restrictions on age, year of diploma, study period, time of registration, and frequency of taking exams. The Open University expects OU students to be able to study independently. Independent learning can be done alone or in groups, both in study groups and tutorial groups (Turan et al., 2022).

From this system, the management of academic services provided to students has a very important role because it is not only oriented towards achieving learning objectives but also provides satisfaction to students in achieving competence. Management as part of the management of education at open universities focuses on digital use. This means that digital technology devices have a very important role in providing services to students to achieve



successful education. The quality of academic services has a significant influence on student trust and satisfaction. In addition, services must also be of high quality so that the resources at the university can be creative, innovative and productive. In addition, academic services can also build the potential in realizing a quality culture of higher education (Nasrullah et al., 2022). So, an information system in quality management can provide quality services in all aspects of educational institutions (Effendi & Tasrif, 2019). An example of one of the designs for an academic service information system for educational institutions is code igniter (Haq et al., 2021).

Thus, educational institutions must carry out periodic analyzes related to academic services to students as a form of improving the quality of academic services and student satisfaction (Indiwo et al., 2018). Such an academic administration service system must be created effectively so that it can meet the needs of students and their expectations while studying at tertiary institutions (Sulaeman, 2018). So, the management of educational institutions must pay attention to input, process and output to be able to correct deficiencies in the management of education delivery and each party involved must commit to carrying out service management properly (Ali et al., 2020; Lestari et al., 2019; Makruf, 2018; Siram, 2016). Because academic service management affects student satisfaction in educational institutions (Rahareng & Relawan, 2017). Other research also shows that service satisfaction is a psychological indicator of student loyalty and the results of this study also show that student satisfaction has the highest mediating relationship between service quality and WOM (Words of Mouth) (Sharif et al., 2021). From these previous studies, it can be understood that academic service management has a very important role both in the aspect of meeting the needs of education delivery, as well as in meeting the needs of students.

However, this research focuses on the analysis of digital academic service management at open universities as one of the pioneer tertiary institutions that organize distance education on a digital basis. This is very important because the development of digital technology continues to change along with the development of knowledge and changes in human life. This means that students in the current global era are also digital natives. Even students use technology for learning purposes outside the classroom (Szymkowiak et al., 2021). Many students use technology easily as a learning resource. This is by education at open universities because open universities also provide digital learning resource services that meet the needs of digital-based academic service management (Smith & Lee, 2017). This condition is very interesting for research because open universities are spread throughout Indonesia which have different internet network maps, of course, this also has differences in digital-based academic service management with urban areas. So, this research aims to to analyze the digital-based academic management services for students of the Elementary School Teacher Education study program at the Open University. The results of this study are expected to contribute to improving academic services so that they are of high quality and can meet the needs of students or current global changes.

Research Method

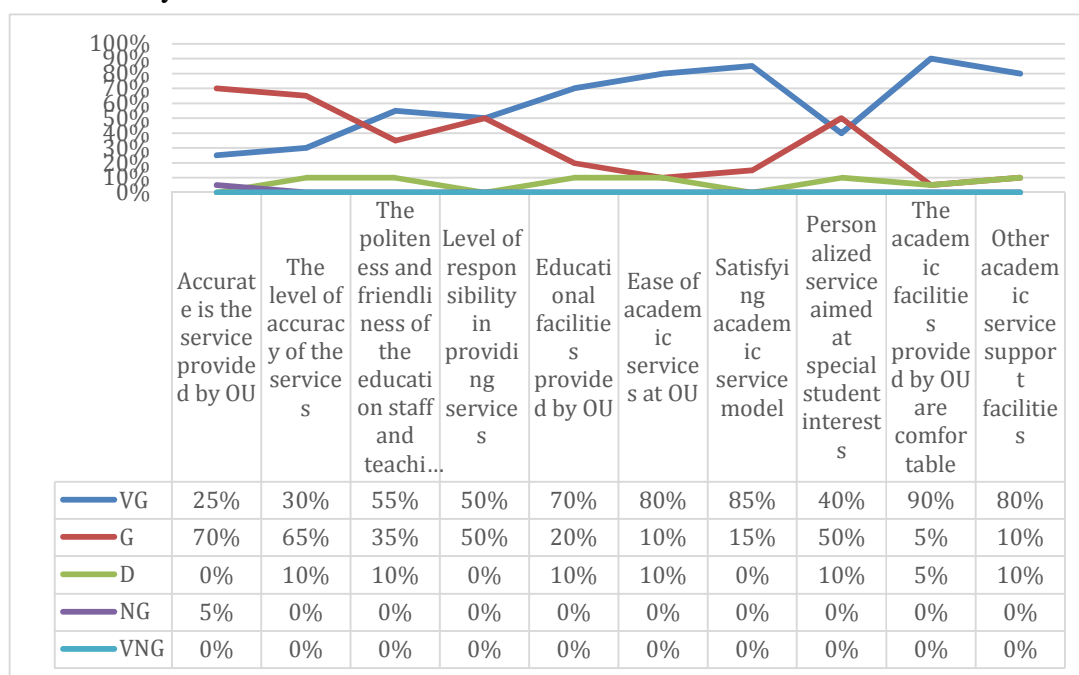
This research approach is qualitative with a case study method. This research approach is related to the analysis of events that occurred in the field according to perspective subjects (Creswell & Creswell, 2018). Data was collected using documents, observations, questionnaires and interviews. The documents analyzed were quality assurance report documents related to academic services, and interviews were conducted with the head of the tertiary institution, namely the head of the study program. The questionnaire was also used to



determine the level of satisfaction of students with academic services at the Open University. Data analysis refers to qualitative research consisting of several steps, namely (Creswell & Creswell, 2018b; Miles et al., 2014); 1) researchers collect data through documents and interviews. 2) The data that has been collected is categorized according to the research needs. 3) Researchers carry out the data coding process. The researcher also applies a qualitative codebook through the appearance of tables or notes containing the data codes studied. 4) Researchers apply the coding process to describe the data according to the needs of the research problem. 5) The researcher shows a description of each theme and restates it in a qualitative narrative/report. The approach used to convey the results of the analysis is a narrative approach in conveying the results of the analysis. 6) The last step in data analysis is making interpretations in qualitative research or interpreting research data.

Results and Discussion

The results of the analysis of the data that have been found are presented in the following table in the form of percentages and overall average values. There are 10 statement conclusion items related to the management of digital-based academic services that have been carried out by OU.



Graph 1. Percentage Value of Student Service Management Evaluation

Note;
 VG = Very good
 G = Good
 D = Doubtful
 NG = Not good
 VNG = Very Not Good

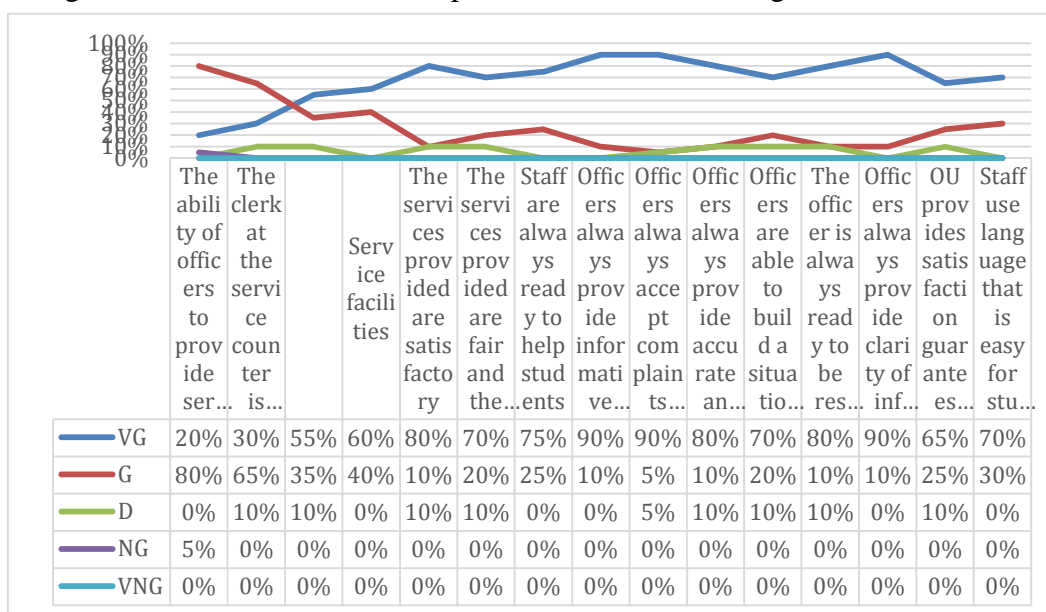
Graph 1 shows that the first is that the timeliness of the services provided by OU to students is considered good. This means that students do not have a long waiting time in the process of their academic needs. The second is the aspect of service accuracy indicating that



OU already has a very good level of service management because the answers are dominated by very good and good choices. The three levels of politeness and friendliness of educators and educational staff were also considered very good, especially from telephone operators, security guards (security guards), administrative (administrative) staff, cashiers, receptionists, and others. This can be understood from the interaction process that occurs either in person or online. The image of service to students is largely determined by people from tertiary institutions who are at the forefront of serving students directly.

Fourth is the responsibility related to the university's level of handling in receiving complaints and resolving problems complained by students. Fifth, the completeness related to the facilities for organizing educational activities is very good. This can be seen from the provision of LMS which contains all the needs of the educational process for various activities such as pursuit and learning, administration and other activities. Sixth, the academic services provided by OU are very good and by the needs of students and are quite efficient time. Seventh is a satisfactory academic service model. Eighth is personal service aimed at the specific interests of students. This special service is for students who need tolerance, such as extending the time to complete assignments due to illness. Ninth, the academic facilities provided by OU are comfortable and can be used very well. This facility is either related to technological facilities or other facilities such as library buildings, classrooms, and so on. The tenth is that other academic service support facilities owned by OU are also considered very good. Thus, the overall management of student services provided by OU as a digital-based tertiary institution is very good and systematic. In addition, OU also always updates technology with developments in technological progress as the main support for the implementation of education.

To find out the level of student satisfaction in student service management, questionnaires were distributed to students. The results of calculating the percentage and average value of the entire data are presented in the following table.



Graph 2. Percentages of Student Service Management Satisfaction



In graph 2, it is concluded that the level of student satisfaction with service management is considered very satisfying. It can be seen from the entire data showing that the highest average value is 0.68 on the very satisfied criteria. This data can also provide an understanding that the university has very good readiness because it has prepared renewable technology for the implementation of distance education. After all, every educational activity that is carried out relies on technological applications such as websites or LMS. So, in this finding, it can be concluded that digital technology is the main heart for the satisfaction and fulfilment of student needs in carrying out learning.

The findings show that overall the level of management of OU services to students at Tarumajaya is considered very satisfying and well-structured. This is of course in line with the readiness of technology owned by OU as the main medium in providing academic services to students. So, technological advances have influenced the way we acquire knowledge and learn. On the other hand, the internet provides fast access to information technology in various fields thereby increasing efficiency and saving time. The importance of online technology is especially emphasized in new methods for learning and education. Even students take advantage of these conditions to integrate this technology into learning outside the classroom (Szymkowiak et al., 2021). So, digital technology has been useful for organizing education including in providing learning resources that can be accessed by students via the internet network.

Information technology poses a challenge to the provision of information in the library so that it can meet the needs of students and educational challenges in the 21st century (Adeniran, 2011). Therefore, the library plays an important role to meet the multi-dimensional demands of students, and research scholars for information and knowledge (Gunasekera, 2010; Saikia & Gohain, 2013). So, OU has understood that the provision and utilization of academic resources and services are the basis for student satisfaction and institutional achievement (Ahmad et al., 2022). This means that tertiary institutions must have digital transformation readiness as a form of readiness for the process of implementing education that leads to digital including learning resources (Deja et al., 2021).

From the description of the data above, it can be concluded that open universities have excellent digital-based education delivery services and are ready with the latest technology. OU as one of the organizers of distance learning is sufficient to meet the needs of the educational process and various websites are provided to meet the needs of the educational process. The Open University as a state university that provides higher education services with a distance learning system is ready to provide excellent services. The service process of "academic administration and learning" is mediated by multimedia which is supported by Information and Communication Technology (ICT)-based technology systems so that students can receive and carry out academic and academic administrative activities without having to come or meet face to face with service staff or lecturers.

Therefore, OU established the Open University Service Center. It also has other important tasks, namely introducing OU to various levels of society and recruiting prospective students. Thus, it is hoped that the existence of the Open University Service Center will be able to increase student enrollment rates and the quality of Open University services. Even other research uses a student support service workflow information system (SSS WIS) to support solving all student problems at their request (Busaba et al., 2019). So, tertiary institutions must improve services by setting standards that are acceptable and satisfactory to students (Imo Ekpoh, 2018). Even students in Korea and America also provide acceptance and satisfaction with online learning through the quality of online support services



provided by universities (Lee, 2010). Thus it can be said that service satisfaction has a significant relationship to academic quality.

Other research shows that the quality of e-learning systems is the most important dimension of overall e-learning service quality, followed by e-learning instructor and course material quality, and e-learning administration and support service quality. In addition, the overall quality of e-learning services is positively related to e-learning student satisfaction, which in turn positively influences e-learning student loyalty. Also, the overall quality of e-learning services has a direct effect on e-learning student loyalty. The implications for colleges and universities are discussed (Pham et al., 2019). These findings describe the digital transformation that can meet the needs of student satisfaction with the academic process. This study contributes to higher education institutions increasing the dimensions of service quality and digital transformation to obtain student satisfaction and student retention in a very competitive education sector. Thus, digital transformation in higher education is necessary for survival and growth in the twenty-first century (Forid et al., 2022).

Conclusion

The results of the data analysis concluded that the management of services to students is related to four components in organizational management, namely; 1) OU's planning management is considered very good for the process of providing the education needed by students. 2) OU coordinates and places the right people in every part needed in the implementation of education at OU so that the academic services provided to students can be maximized and meet student needs. 3) The implementation of OU's service management is carried out by the operational procedures set by OU. OU is developing and improving the quality of management to provide excellent service to students. 4) The evaluation management that OU already has also shown an evaluation process that is systematic and by the procedures owned by OU in providing services to students. The university has prepared human resources who understand the concept of service in the academic field so that teaching staff or educational staff have a very good level of responsiveness to student needs. The fourth indicator is a guarantee that is shown by the ability, competence, courtesy, and characteristics of each academic community related to student services that have been prepared very well. The fifth indicator is empathy shown by the desire and sense of responsibility of every education staff and teaching staff in providing services through interactive communication. Therefore, the level of academic services provided to university students has been designed very well, starting from the equipment or the quality of human resources.

Recommendation

The results of this study have implications for the development of quality management in providing academic services to students. Educational institutions can develop the competencies or abilities of the academic community, especially educational staff who have the task of providing services to students directly. Universities can provide various training related to components that must be mastered by human resources, especially for mastering digital transformation so that they can contribute to quality academic services. Educational institutions (OU) can use the results of this research as evaluation material to increase student satisfaction with the academic services that have been provided so far. For students, the results of this research can be used to understand more deeply the procedures and procedures for implementing distance education at OU and the services provided. As for lecturers, the



results of this research can be used as a way to improve the quality of academic services, especially in the process of teaching and learning. Future researchers can use the results of this study as a way to develop further research related to the interaction or interaction patterns of students at OU. Moreover, interaction and communication become a very important part of achieving learning goals. From the academic services found in this study, it can also be developed on the level of student confidence in carrying out learning activities and how student academic service satisfaction is related to mastery of material or achievement.

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