Al-Ishlah: Jurnal Pendidikan
Vol.14, 2 (June, 2022), pp. 1511-1526
ISSN: 2087-9490 EISSN: 2597-940X, DOI: 10.35445/alishlah.v14i1.1323

Website-Based Academic Service Development with ADDIE Design in Higher Education

Taqwa[1], Sumardin Raupu[2]

[1] Institut Agama Islam Negeri (IAIN) Palopo, South Sulawesi, Indonesia; taqwawawan7@gmail.com
[2] Institut Agama Islam Negeri (IAIN) Palopo, South Sulawesi, Indonesia; sumardin_aldhy@iainpalopo.ac.id

ARTICLE INFO

Keywords:

Website Based Academic Services;
ADDIE Development Model;
Higher Education

Article history:

Received 2022-02-20
Revised 2022-03-04
Accepted 2022-05-31

ABSTRACT

This study aims to develop a website-based academic service at the Islamic Educational Management Study Program in an Islamic university in Palopo. Research and development (R&D) using ADDIE Design was employed to develop the website. The data collection technique used was observation, interviews with five students, the distribution of questionnaires, and documentation, among other methods. The data analysis technique was carried out qualitatively and quantitatively through data analysis techniques of validity, practicality, and effectiveness. At the Islamic Educational Management Study Program an Islamic university in Palopo, this research results in the development of website-based academic services, which students can use to obtain educational services with a high level of validity from the layout/design, the material/website, and the language in the product in the very valid category, according to the findings. Regarding the practicality and effectiveness of the website-based academic services developed for use, they fall into "very practical and very effective" for use in the program. The findings of this study have implications for the critical role that management information systems play in providing excellent service to the entire academic community in higher education, as described above.

Corresponding Author:
Taqwa
Institut Agama Islam Negeri (IAIN) Palopo, South Sulawesi, Indonesia; taqwawawan7@gmail.com

1. INTRODUCTION

Several aspects of human life have been dramatically altered by the Covid 19 virus, which has spread across the world (Herliandry et al., 2020; Rahman & Subiyantoro, 2021; Musliadi et al., 2021). This has led to a new policy issued by the Indonesian government, namely the implementation of physical distancing in various fields of human life, especially in the area of education (Adham & Mahmudah, 2021; Rifqi, 2021; Muhammadiah & Susilo, 2021; Ramdani et al., 2021). Through this policy, of course, has an impact on the patterns and styles of learning carried out by educational institutions, communication systems, services, and so on (Mustajab & Fawa'iedah, 2020; Maman et al.,

2021), which must be this is done online, so inevitably you have to use information technology tools (Suwidiyanti & Anshori, 2021; Mushfi et al., 2021; Zamroni & Qatrunnada, 2021) .

In education, technological developments are used to support operational activities in delivering information (Safitri et al., 2021; Fajri et al., 2021), especially at at an Islamic university in Palopo as the site of this research. The use of technology in education, especially in universities, can facilitate information related to campus activities because it can be accessed using the internet (Hendrawati et al., 2021; Komsiyah, 2021; Harunasari et al., 2021). Using this technology, it is hoped that the services provided to the entire academic community can be optimal, faster, and able to provide excellent service (Mahmud et al., 2021).

An Islamic university in Palopo that provides online lectures. Through the online lecture process, indirectly, all services on campus are also carried out online. Therefore, during this pandemic, as a higher education institution, campuses, especially study programs, must create innovations to provide good services so that student activities run as usual. In addition to providing students with greater convenience, it also aids in the prevention of the spread of the Covid-19 outbreak.

Using a variety of applications is one option that can be used during the online lecture process as an alternative. This includes the applications Google Classroom, Google Meet, and zoom (Dakir et al., 2021). As for the educational service process on campus, one alternative that can be used is utilizing a website application (Mahmud et al., 2021). Advances in increasingly sophisticated technology allow the service process to students to be carried out quickly through website-based academic services (Rozi et al., 2021).

Website-based academic services are a series of educational information systems carried out non-physically (Hamid & Yip, 2019; Arseven et al., 2019; Amalia et al., 2021; Purnomo et al., 2021), through stages of mutually exclusive procedures, related to each other into a single unit that works together harmoniously to process academic data into valuable information. One of the study programs at an Islamic university in Palopo that has a website is the Islamic Educational Management Study Program. A website with a domain name of http://mpi.iainpalopo.edu/mpi/ has already been established as a form of institutional representation for this Study Program, which has the potential to develop scientific knowledge in Islamic Educational Management that is superior, dynamic, and competitive in the integration of scientific excellence that is characterized by local wisdom.

The website available in the Islamic Educational Management Study Program so far still has several shortcomings. In terms of security, the website still uses the Facultys domain so that the access speed is not stable because seven study programs use the same field, and there are frequent website break-ins by hackers. In terms of service, the lack of this website only provides information related to study program profiles and news about academic and non-academic activities, both lecturer and student activities. There is no special menu to accommodate educational services. Moreover, the current service is entirely online, plus the number of students of this Study Program is increasing every year. Now, there are 666 students from the first batch (2015) to the 2020 batch.

There is a demand for this study program to improve its quality as a result of this, and one way to do so is to develop an academic information system, which is being considered. An excellent educational information system may improve the data processing process and the services provided to students, and as a result, it will be a strong selling point for this Study Program (Osman et al., 2020).

Website-based academic services are not new in the world of education. Building an educational service system aims to facilitate the user or users as a form of service operation. Homaidi (2016) in his research, suggests that the core of academic information-based services aims to ease services for students and lecturers so that the obstacles that have been occurring in academic services can be resolved. Kurbani (2017) said that the level of student satisfaction has an impact on the quality of academic services and educational facilities.

Haq et al., (2021) say that E-Services developed using a Codeigniter-based Management Information System are very useful and feasible to provide excellent service to students. Mustopa et al., (2020) assert that the quality of usability, information, and service interaction on student academic service websites impacts the satisfaction of those who use them. Student satisfaction, the community, fellow educators, and stakeholders who employ college graduates. According to Kemenuh (2020) they are all critical factors in determining the quality of academic service management practices. Maintaining the quality of academic service management can be accomplished through the provision of excellent customer service. When it comes to services, self-awareness, enthusiasm, reform, value-added services (such as impressive sales), care, and evaluation are all mentioned.

Thadi (2020) said that the dissemination of academic service messages in higher education occurs in two forms, namely simultaneously and sequentially. Even though the simultaneous dissemination of messages, which includes the distribution of academic services information and the selection of communication media, has proven to be quite effective, the sequential dissemination of messages through written media has proven ineffective. Melani (2019) said that the educational service complaint system for students using responsive web design made it easier to submit complaints about academic services received. Sahi, (2019) said that to implement cloud computing in educational activities, all academics need collaboration to make these activities successful so that the desired goals can be achieved. Through cloud computing, the quality of academic services in universities can be appropriately improved.

From these several studies, it is shown that fast, responsive, and user-friendly academic services are the expectations of customers, especially students, so it needs to be continuously developed in order to be able to provide the best service to its users. Therefore, this research has a position as a complement to the design of academic service development that has been submitted by the researchers as mentioned above.

With a Research and Development (R&D) approach, this research presents a novel website-based educational service system based on the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), which was applied to the Islamic Educational Management Study Program at the Faculty of Tarbiyah and Teacher Training, an Islamic university in Palopo. It is hoped that through this research and development approach, a new information system and academic service will be developed, allowing students to receive the best possible service. Because of this background information, the following formulation of the problem has been developed for this investigation. This research focuses on how the prototype of website development in academic services, its validity, practicality, and effectiveness in the Islamic Educational Management Study Program at an Islamic university in Palopo?

2. METHODS

The goal of this study is to use a Research and Development (R&D) design to develop either new products or improvements to existing products and then test the effectiveness of these products in the market. The product that will be developed is a website-based academic service designed to make it simple for people to find information. Islamic Educational Management Study Program an Islamic university in Palopo, housed in the Faculty of Tarbiyah and Teacher Training, employs the ADDIE model to develop website-based educational services. The ADDIE model stands for Analysis, Design, Development, Implementation, and Evaluation and is used to develop website-based educational services.

This research was carried out between July and September of 2021. This study's instruments for gathering information included observations of website-based academic services, interviews with five students using purposive techniques, documentation, and questionnaires to obtain information about the effectiveness of website-based educational services in the Islamic Educational Management Study Program.

According to the findings of this study, the information gathered was analyzed using two statistical analysis techniques, which were as follows:

1. Qualitative Descriptive Analysis

   This technique is used to process data from a review of three validators regarding the developed product's material, language, and design/layout. This data analysis technique is carried out by grouping qualitative data into input, feedback, criticism, and suggestions for improvement in the three validators' product validity sheets.

2. Quantitative Descriptive Analysis

   This technique is used to process data obtained through validity sheets and product practicality questionnaires.

   a. Validity Data Analysis Techniques

      The validity data analysis technique is tabulation by three competent validators regarding the suitability of the material, language, and design/layout in the product being developed; the formula seeks the percentage:

$$percentage = \frac{\sum score\ per\ item}{maximum\ score} \times 100\%$$

   b. Practical Data Analysis Techniques

      The practical data analysis technique is the result of tabulation by 20 students; the formula seeks the percentage:

$$percentage = \frac{\sum score\ per\ item}{maximum\ score} \times 100\%$$

   c. Effectiveness of Data Analysis Techniques

      Effectiveness data analysis technique is the result of tabulation by 20 students; the formula seeks the percentage:

$$percentage = \frac{\sum score\ per\ item}{maximum\ score} \times 100\%$$

Based on the three formulas mentioned above, it can be categorized as follows;

Table 1: Categorization of Product Rating

%	Category Validity	Practicality Category	Effectiveness Category
0 – 20	Invalid	Not Practical	Ineffective
21 – 40	Less Valid	Less Practical	Less effective
41 – 60	Quite Valid	Practical enough	Effective enough
61 – 80	Valid	Practical	Effective
81 – 100	Very Valid	Very Practical	Very effective

3. FINDINGS AND DISCUSSION

The ADDIE development model was used as the basis for this research, conducted using a Research and Development (R&D) approach. The following are the outcomes of the various stages of

the development of website-based academic services at the Islamic Educational Management Study Program at an Islamic university in Palopo:

1. Development Stage

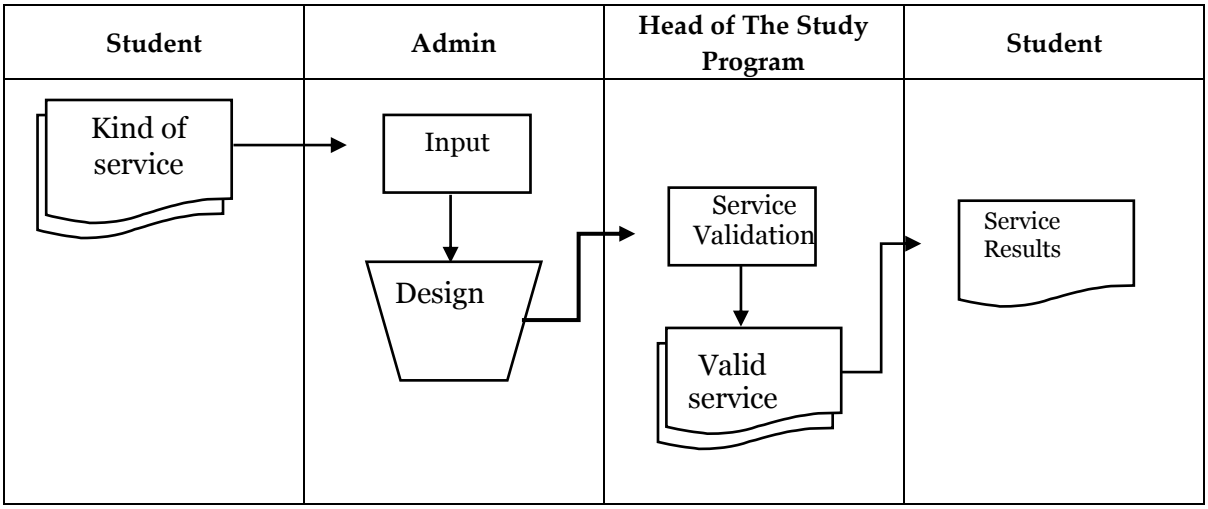
a. Stage of Analysis

The analysis stage is the initial stage in developing this website. At this stage, two activities are carried out. Namely, the website needs analysis and student needs analysis. In the website requirements analysis step, the researcher made observations on existing websites before development. The researchers discovered the following issues as a result of their observations: Academic services in the study program have not been well integrated, academic data is still stored in archive form, the data search process is time-consuming, errors frequently occur in data processing, and the reporting process is slow; and 2) The study program website is built with free and not premium applications, resulting in a limited-service process available through the website.

In analyzing student needs, the researcher conducted interviews with five students who were selected purposively. Based on the results of this interview, the researcher found a problem, namely that students had difficulty in managing academic files in the study program, due to face-to-face restrictions by the campus amid the Covid-19 pandemic, so that educational services in online study programs were needed which could be accessed at any time. Based on these problems, the researchers developed website-based academic assistance at the Islamic Educational Management Study Program at an Islamic university in Palopo. With this development, it is hoped that it can help the process of educational services in this study program.

Before developing website-based academic services, what is done in this analysis stage is to describe what activities will run in the website-based educational services. In this case, a flow map is needed to define what actions will run in website-based academic services. In addition, the flow map is also helpful in describing the visible flow of documents, explaining the relationships of data and information with the parts of these activities, and defining the relationship between the process and the data flow in the form of output and input documents.

Table 2: Flow Map of the Islamic Educational Management Study Program Website



b. Stage of Design

The next stage is the design stage. Product design is a step taken to develop products in the form of website-based academic services. At the design stage, the researcher carried out several activities: first, the Use Case Diagram, which is the website's design to be created, which includes user use case diagrams and admin use case diagrams. Second, system design includes; Main Page Design View, Profile Page Design View, Curriculum Page Design View, Student & Alumni Page Design View, Questionnaire Page Design View, Download Page Design View, Accreditation Document Design View, Administration Management Page Design View.

The design stages are adjusted to the needs and objectives that are the primary targets in the development so that website-based service products can be optimal and provide the best service for students and other users for academic purposes.

c. Stage of Development

The website design created at the design stage is described in a natural form to establish the product to be developed. Activities carried out at the development stage are Website Creation. This stage is the realization stage of the use case diagram. The design stage is realized in the form of a website, making a website using WordPress. The website created refers to the planning design carried out, consisting of; Main Page, Profile Page, Curriculum Page, Student, and Alumni Page, Questionnaire Page, Download Page, Accreditation Document Page, Administrative Management Page.

d. Stage of Implementation

At this stage, the implementation of development is carried out with limited trials on students of the Islamic Educational Management Study Program from the first batch. So, a questionnaire on the practicality and effectiveness of the product was given through a google form to 20 students who were randomly selected from five collections, from 2016 to the 2020 batch. Five students were chosen for each class as representatives as test subjects.

e. Stage of Evaluation

There are two types of evaluation stages in the ADDIE model, namely formative evaluation and summative evaluation. Formative assessment in this development is carried out at the end of each step. At the same time, the summative evaluation is carried out at the end of the story after conducting the validity, practicality, and effectiveness test stages. In this study, the product developed in a website-based academic service was declared valid by a team of validators and practical and effective from the test results to 20 students of the Islamic Educational Management Study Program. This website-based academic service was declared good service can be used with minor revisions.

2. Final Product Prototype Description

Based on the development process at the design stage, a prototype or initial product display is produced. The prototype or production of the website-based academic service developed consists of several menus, namely the Profile menu (containing the history of the Islamic Educational Management Study Program, vision, and mission, goals, graduate prospects, organizational structure, lecturers and education staff), Curriculum menu (containing the curriculum structure and competency of graduates), Student and Alumni menu (having student and alumni conditions, HMPS activities, alumni association activities), Questionnaire menu,

Download menu (containing Study Program documents, guidelines, and regulations, forms), and Accreditation menu.

Figure 1 : Contents of the website

The description of the final prototype or appearance of website-based academic services is as follows:

a. Main page

The website's main page consists of welcome remarks, logos of institutions and study programs, slogans, announcements, campus facilities, profile videos, and study program statistics.

b. Profile Page

This profile page displays the history, vision and mission, goals, prospects for graduates, organizational structure, and lecturers of the Study Program.

c. Curriculum Page

The curriculum page consists of the curriculum structure and graduate competencies.

d. Student Page

The student page consists of the state of students and alumni.

e. Questionnaire Page

The questionnaire page contains an alumni and graduates user questionnaire and an assessment questionnaire

f. Download Page

The download page consists of study program documents. view.

g. Administration Management Page

The administrative management page is a page that contains services in the form of reporting academic advisory lecturers, reporting lecture activities, proposing thesis titles, and others.

3. Product Validity Results

Before testing the use of this website-based academic service, the product developed was first validated by three competent validators as follows:

Table 3: Product Development Validators

NO	Validator Name	Skill	Position
1	KMP	Layout/Design expert	Expert Staff of the Technology and Database Unit (TIPD) at an Islamic university in Palopo
2	BH	Material Expert/Website	Computer Lecturer at Cokroaminoto University, Palopo
3	UK	Linguist	Lecturer of Indonesian at an Islamic university in Palopo

The results of the validation test by the three validators are as follows:

Table 4: Validation Results by Layout/Design Expert Validators

No	Aspect Rated	Score
1	The clarity of the identity of the Islamic Educational Management Study Program displayed on the website	4
2	Completeness of the Menu/Navigation used	3
3	Clarity of Menu/Navigation used	3
4	Conformity of Menu/Navigation naming with information displayed	4
5	Ease of adding, changing, and deleting data (Administrator)	4
6	The accuracy of the layout of the homepage display of the information system website that was built	4
7	Accuracy of display design color selection	3
8	Font selection accuracy	4
9	Font size selection accuracy	4
10	The accuracy of the background color selection	4
11	The compatibility between the color of the letters and the background	3
12	The accuracy of the displayed menu layout settings	3
13	Image clarity	4
14	The exact size of the displayed image	4
15	Overall website view	3
Score obtained		54
Total score		60
Score Percentage		90%
Category		Very Valid

Source: Primary Data Processed

Based on the validation results from the design expert validators, the percentage score of 90% was obtained in the very valid design category

Table 5: Validation Results by Material/Website Expert Validators

No	Aspect Rated	Score
1	Completeness of information presented	3
2	Ease of accessing the information provided	4
3	Ease of understanding the content of the information	4
4	The study program profile is presented entirely and clearly	4
5	The available study program data is wholly presented and clearly	3
6	Data for educators and education personnel is wholly presented and clearly	4
7	Administrative management data is wholly presented and clearly	3
8	Student data is wholly presented and clearly	3
9	Availability of activity agenda information	3
10	Availability of photo and video galleries	3
11	Availability of student information and curriculum	4
Score obtained		38
Total score		44
Score Percentage		86 %
Category		Very Valid

Source: Primary Data Processed

Based on the validation results from the material/website expert validator, the percentage score of 86% with the material/website category is very valid.

Table 6: Validation Results by Linguist Validators

No	Aspect Rated	Score
1	Use the rules of good and correct language.	4
2	Using terminology that is by the concept of the information displayed	4
3	The language used is simple and easy for students to understand	4
4	The language used is communicative	3
5	The accuracy of language selection in deciphering information	4
6	The sentences used to represent the content of the information to be conveyed	4
7	The sentences used are simple and direct to the target	3
8	Spelling accuracy	3
9	Consistency of use of terms	3
10	Consistency in the use of symbols or icons	3
Score obtained		35
Total score		0,88
Score Percentage		88%
Category		Very Valid

Source: Primary Data Processed

Based on the validation results from the linguist validator, the percentage score was 88% with the very valid language category.

The validation of these three validators is needed to obtain information about the validity of the product, criticism, and suggestions so that the product developed by the researcher becomes a quality product. Improvements from the validation results will produce a final prototype which will then be implemented to 20 students of the Islamic Educational Management Study Program.

4. Product Practicality Results

After the product is declared valid, then the product will be seen again for its practicality. To see the suitability of the product, a practicality test was carried out. The trial was carried out by giving a questionnaire to 20 students of the Islamic Educational Management Study Program from the 2016 to 2020 class, each of which was chosen by five people at random. The results of the product practicality trials from the 20 students are as follows:

Table 7: Product Practicality Results

No	Student Code	Rated Aspect						
		1	**2**	**3**	**4**	**5**	**6**	**7**
1	1A	3	4	4	3	4	3	4
2	2A	4	4	3	4	3	4	4
3	3A	4	3	4	4	3	4	3
4	4A	3	4	4	4	3	3	3
5	5A	4	3	4	3	4	3	4
6	1B	4	4	4	4	4	3	3
7	2B	3	3	4	3	4	3	4
8	3B	4	3	4	3	4	3	4
9	4B	4	4	4	3	4	3	4
10	5B	4	3	4	3	4	4	3
11	1C	4	4	2	4	3	4	3
12	2C	3	3	3	2	4	4	4
13	3C	3	4	4	4	3	3	3
14	4C	3	4	4	3	4	3	4
15	5C	3	3	4	3	4	4	4
16	1D	2	4	3	4	3	3	3
17	2D	2	4	3	4	3	4	3

18	3D	2	3	4	3	3	3	4
19	4D	4	4	4	4	3	3	4
20	5D	4	3	4	3	4	3	3
Amount		67	71	74	68	71	67	71
Maximum Score		80	80	80	80	80	80	80
%		84	89	93	85	89	84	89
Category		SP	SP	SP	SP	SP	SP	SP
Average %		88			Very Practical			

Source: Primary Data Processed

The analysis results in table 7 show that the product in the form of website-based academic service development has an average of 86% and is in the very practical category.

5. Product Effectiveness Results

Following the product's validity has been determined, the product's effectiveness will be evaluated once more. It was necessary to conduct a practical test in order to determine the product's effectiveness. In order to conduct the trial, 20 students enrolled in the Islamic Educational Management Study Program from the classes of 2016 to 2020 were each given an effectiveness test questionnaire and a practicality test questionnaire to complete. In each batch, five people were chosen at random from the pool of applicants. The results of the product effectiveness trial from the 20 students are as follows:

Table 8: Product Effectiveness Results

No	Student Code	Rated Aspect							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	1A	3	3	4	3	4	4	4	4
2	2A	4	3	3	4	3	4	4	3
3	3A	4	4	4	4	3	4	3	4
4	4A	3	4	4	4	3	4	4	4
5	5A	4	4	4	3	4	4	4	3
6	1B	4	4	4	4	3	4	3	4
7	2B	3	3	3	3	3	4	4	4
8	3B	4	3	3	3	4	3	4	4
9	4B	4	4	3	3	4	3	4	3
10	5B	4	3	4	3	4	4	4	4

11	1C	4	4	3	4	3	4	4	4
12	2C	3	3	3	3	4	4	4	4
13	3C	4	4	4	4	3	4	3	3
14	4C	4	4	4	3	4	3	4	4
15	5C	3	3	4	3	4	4	4	4
16	1D	4	4	3	4	4	3	3	4
17	2D	4	4	3	4	4	4	4	4
18	3D	3	3	4	3	4	4	4	3
19	4D	4	4	4	4	4	3	4	4
20	5D	4	3	4	3	4	4	3	4
Amount		74	71	72	69	73	75	75	75
Maximum Score		80	80	80	80	80	80	80	80
%		93	89	90	86	91	94	94	94
Category		SE	SE	SE	SE	SE	SE	SE	SE
Average %		91				Very effective			

Source: Primary Data Processed

The analysis results in table 8 show that the product in the form of website-based academic service development has an average of 91% and is in the very effective category.

As defined by Hamedoğlu (2019), an information system can be thought of as a combination of humans, technological facilities or tools (such as media), procedures, and controls over specific activities that produce information that can be used by the user. As defined by the International Organization for Standardization, an information system is a collection of interconnected elements that function as a single unit to integrate data, process it, store it, and distribute the information (Kurniawan & Mahmudah, 2020; Silviani et al., 2021).

The requirement to establish a web-based management academic service is, of course, a challenge in terms of adaptability. There are at least three primary benefits to utilizing a management information system: first, it assists in the smooth, precise, and efficient operation of the academic data processing mechanism, allowing information to be obtained more quickly; second, it reduces the amount of time it takes to obtain information; and third, it saves money (Muali et al., 2019). Second, through an online educational information system, services to students that were previously delayed due to the need to obtain data manually are now faster, more accurate, and more relevant (Sumarlin, 2015). Third, the management website can help improve the system's performance when it comes to completing tasks in the section that deals with academic data reports.

It is possible to define service quality in terms of how far there is a difference between the reality and customers' expectations for the services they receive (Prananda et al., 2019). The level of service quality can be determined by comparing customers' perceptions about the services they receive (Kuswanto & Anderson, 2021). Service quality is the last link in the chain of activities for the total

quality management system. Service quality is also an essential element of real quality to influence decisions (Yun, 1998).

There are at least five determinants of service quality, which are based on the concept of Crosby (2008) which can be detailed as follows: Trustor dependability (dependability): the ability to provide accurate and dependable services, as evidenced by student assessments based on physical appearance. In the Islamic Educational Management Study Program at an Islamic university in Palopo, physical space, academic/departmental space, lecture facilities, infrastructure, toilet cleanliness, and comfort are important considerations. Responding quickly and accurately to customer needs is defined as the ability to assist customers and provide services quickly or responsively, as evidenced by student assessments of the readiness of the Islamic Educational Management Study Program at an Islamic university in Palopo to assist students to handle student complaints quickly and accurately. To complete their tasks and work effectively, employees from the Islamic Educational Management Study Program at an Islamic university in Palopo are evaluated by students who assess their knowledge and skills. The third element of assurance is librarians' knowledge and courtesy and their ability to generate trust and confidence. Fourth, empathy is a necessary condition for caring and providing personal attention to customers, as evidenced by student evaluations of friendliness and communication skills and full attention from employees of the Islamic Educational Management Study Program at an Islamic university in Palopo, among other things. Tangibles: the appearance of physical facilities, equipment, personnel, and communication media, specifically in the form of student evaluations of physical appearance, study program rooms, lecture facilities and infrastructure, toilet cleanliness, and comfort in the environment of the Islamic Educational Management Study Program at an Islamic university in Palopo.

4. CONCLUSION

As a result of using the ADDIE development model (Analyze, Design, Development, Implementation, and Evaluation), the final prototype of this development resulted in website-based academic services at the Islamic Educational Management Study Program at an Islamic university in Palopo, which students could use to obtain high-quality educational services and prime.

A very valid category includes website-based academic services provided by the ADDIE model at the Islamic Educational Management Study Program at an Islamic university in Palopo in layout/design, material/website, and language in the product. Regarding the practicality and effectiveness of the website-based academic services developed for use in the Islamic Educational Management Study Program at an Islamic university in Palopo, they fall into "very practical and very effective" for use in the program. Student access and uploading of academic files required for the management of the Islamic Educational Management Study Program at an Islamic university in Palopo is made more accessible due to the development of website-based educational services for students.

REFERENCES

Adham, A. S., & Mahmudah, F. N. (2021). "Art and Culture" Learning Management for Students' Increased Achievement During the Covid-19 Pandemic. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(1), 106–114. https://doi.org/10.33650/al-tanzim.v5i1.1904

Amalia, C., Wulandari, L., & Rusydiyah, E. F. (2021). Utilization of Education Management Information System (EMIS) As an Anti-Corruption Effort in Madrasas. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(2), 154–162.

Arseven, İ., Orhan, A. T., & Arseven, A. (2019). Proficiency Perceptions and Attitudes of Pre-Service Teachers on İ nformation and Communication Technologies. *International Education Studies*, *12*(1), 24–36. https://doi.org/10.5539/ies.v12n1p24

Dakir, Muali, C., Zulfajri, & Muali, C. (2021). Design Seamless Learning Environment in Higher

Education with Mobile Device Design Seamless Learning Environment in Higher Education with Mobile Device. *Journal of Physics:* Conference *Series 1899*, *1899*, 1–5. https://doi.org/10.1088/1742-6596/1899/1/012175

Fajri, Z., Muali, C., & Farida, L. (2021). Student's Learning Motivation and Interest ; The Effectiveness of Online Learning during COVID-19 Pandemic. *Journal of Physics: Conference Series*, *1899*, 1–10. https://doi.org/10.1088/1742-6596/1899/1/012178

Hamedoğlu, M. A. (2019). The Use of Information and Communication Technologies in Classroom Management in Primary Schools. *Malaysian Online Journal of Educational Technology*, *7*(4), 145–154.

Hamid, F. S., & Yip, N. (2019). Comparing service quality in public vs private distance education institutions: Evidence based on Malaysia. *Turkish Online Journal of Distance Education*, *20*(1), 17–34. https://doi.org/10.17718/tojde.522368

Haq, M. S., Wagino, W., Rofiah, K., & Aini, N. (2021). Pengembangan Aplikasi Sistem Informasi Layanan Akademik Berbasis Codeigniter. *Jurnal Administrasi Dan Manajemen Pendidikan*, *4*(2), 139–151. https://doi.org/10.17977/um027v4i12021p139

Harunasari, S. Y., Dwigustini, R., Halim, N., & Susillawati, S. (2021). University Students' Acceptance of Online Learning During the Pandemic in Indonesia. *AL-ISHLAH: Jurnal Pendidikan*, *13*(1), 396–406. https://doi.org/10.35445/alishlah.v13i1.491

Hendrawati, R., Ismanto, B., & Iriani, A. (2021). Pengembangan Website Bimbingan Belajar di Sekolah Dasar. *Jurnal Basicedu*, *5*(3), 1401–1408. https://doi.org/10.31004/basicedu.v5i3.931

Herliandry, L. D., Nurhasanah, N., Suban, M. E., & Kuswanto, H. (2020). Pembelajaran Pada Masa Pandemi Covid-19. *JTP - Jurnal Teknologi Pendidikan*, *22*(1), 65–70. https://doi.org/10.21009/jtp.v22i1.15286

Homaidi, A. (2016). Sistem Informasi Akademik Amik Ibrahimy Berbasis Web. *Jurnal Ilmiah Informatika*, *1*(1), 17–23. https://doi.org/10.5281/jimi.v1i1.5

Kemenuh, I. A. A. (2020). Peran Manajemen Layanan Akademik dalam Peningkatan Mutu Akademik Perguruan Tinggi. *PINTU:Pusat Penjaminan Mutu*, *1*(1), 62–69.

Komsiyah, I. (2021). The Challenge of Zoom Cloud Meeting in Online Learning Process. *AL-ISHLAH: Jurnal Pendidikan*, *13*(2), 829–835. https://doi.org/10.35445/alishlah.v13i2.820

Kurbani, A. (2017). Pengaruh Kualitas Layanan Akademik dan Fasilitas Pendidikan terhadap Kepuasan Mahasiswa Kuliah pada Universitas PGRI Palembang. *Jurnal Media Wahana Ekonomika*, *13*(4), 22–35.

Kurniawan, A., & Mahmudah, F. N. (2020). Pelaksanaan Pembelajaran Berbasis Teknologi Informasi dan Komunikasi di Sekolah Menengah Kejuruan. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *4*(2), 184–196.

Kuswanto, & Anderson, I. (2021). Effect of service quality and motivation on the consumption behavior of students in the academic services. *International Journal of Evaluation and Research in Education*, *10*(1), 86–96. https://doi.org/10.11591/ijere.v10i1.20794

Mahmud, M. E., Widat, F., & Fuadi, A. (2021). Learning Management System in Streamlining Learning through Seamless Learning Approach. *AL-ISHLAH: Jurnal Pendidikan*, *13*(2), 874–884.

Maman, Witarsa, R., & Ainin, D. T. (2021). Google Classroom as a Distance Learning Tool during a Pandemic Google Classroom as a Distance Learning Tool during a Pandemic. *Journal of Physics: Conference Series PAPER*, *1899*, 1–5. https://doi.org/10.1088/1742-6596/1899/1/012176

Muali, C., Wahid, A. H., Rahman, K., Najiburrahman, & Fauzi, A. (2019). Management of Islamic Higher Education Based on Benchmarking and Information Technology in the Revolutionary Era 4.0. *Proceedings of 1st Workshop on Environme*, 1–5.

Muhammadiah, M., & Susilo, C. B. (2021). Implementation of Online Learning Media in the Covid-19 Pandemic. *AL-ISHLAH: Jurnal Pendidikan*, *13*(3), 1958–1966.

Mushfi, M., Iq, E., Madanibillah, A., Muali, C., Anam, N. K., & Bon, A. T. (2021). Innovative Learning Media Based on e-Learning in the New Normal Era. *Proceedings of the 11th Annual International*

Conference on Industrial Engineering and Operations Management Singapore, 6987–6993.

Musliadi, M., Harun, C. Z., & Bahrun, B. (2021). Principal Management of Extraordinary School on Learning Process during the COVID-19 Pandemic. *AL-ISHLAH: Jurnal Pendidikan*, *13*(1), 715–724. https://doi.org/10.35445/alishlah.v13i1.526

Mustajab, M., & Fawa'iedah, Z. (2020). Adapting to Teaching and Learning During Covid-19: A Case of Islamic School's Initiative of Self-regulated Learning. *Nadwa*, *14*(2), 241–264. https://doi.org/10.21580/nw.2020.14.2.6515

Mustopa, A., Agustiani, S., Wildah, S. K., & Maysaroh, M. (2020). Analisa Kepuasan Pengguna Website Layanan Akademik Kemahasiswaan (LYKAN) UBSI Menggunakan Metode Webqual 4.0. *Jurnal Perspektif*, *18*(1), 75–81. https://doi.org/10.31294/jp.v18i1.7413

Osman, A. R., Sohel-Uz-zaman, A. S. M., Ashraf, M. A., & Uddin, A. (2020). Vindicating service quality of education through structural equation modeling (SEM): International students' perspective. *International Journal of Higher Education*, *9*(3), 158–172. https://doi.org/10.5430/ijhe.v9n3p158

Prananda, Y., Lucitasari, D. R., & Abdul Khannan, M. S. (2019). Penerapan Metode Service Quality (Servqual) Untuk Peningkatan Kualitas Pelayanan Pelanggan. *Opsi*, *12*(1), 1. https://doi.org/10.31315/opsi.v12i1.2827

Purnomo, H., Chaer, M. T., & Mansir, F. (2021). Humanistic Public Service Education in Government Gamping Sub-District Yogyakarta. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(2), 52–61.

Rahman, A., & Subiyantoro, S. (2021). The Leardership Role of School Principals in Online Learning During the Covid-19 Pandemic. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(1), 165–175. https://doi.org/10.33650/al-tanzim.v5i1.1805

Ramdani, Z., Kembara, M. D., Alhapip, L., Amri, A., Warsihna, J., & Anas, Z. (2021). Teachers' Perception and Readiness Towards Adaptive Learning in the COVID-19 Pandemic: Thematical Content Analysis Study. *AL-ISHLAH: Jurnal Pendidikan*, *13*(2), 1383–1393. https://doi.org/10.35445/alishlah.v13i2.915

Rifqi, A. (2021). Regional Based KKN Management: Toward Freedom of Learning During the Covid-19 Pandemic. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(1), 95–105. https://doi.org/10.33650/al-tanzim.v5i1.1866

Rozi, F., Syakroni, A., Muali, C., & Widad, R. (2021). The Effect of Using Edmodo Application on Students ' Mastery Skill of Technology. *Journal of Physics: Conference Series*, *1899*, 1–6. https://doi.org/10.1088/1742-6596/1899/1/012157

Safitri, S., Mulyati, S., Wahyudi, W., Maftuhah, M., & Zahruddin, Z. (2021). Madrasah Infrastructure Management Before Face-To-Face Learning In The Pandemic. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(2), 40–51.

Sahi, A. (2019). Penerapan Layanan Akademik dalam Pemanfaatan Teknologi Cloud Computing. *TEMATIK-Jurnal Teknologi Iformasi Dan Komunikasi*, Vol. 6, pp. 1–10. Retrieved from http://jurnal.plb.ac.id/index.php/tematik/article/view/218

Silviani, S., Maarif, M. A., & Wibowo, A. (2021). Knowledge Sharing Management: Strategy for Improving the Quality of Human Resources. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(1), 129–139. https://doi.org/10.33650/al-tanzim.v5i1.1831

Snowden, K. (2008). A Tribute to Philip Crosby. *International Journal of Commerce and Management*, *17*(2002), 42. https://doi.org/10.1108/ijcoma.2007.34817aaa.001

Sumarlin, J. (2015). Pengembangan Sistem Informasi Akademik Berbasis Web pada Akademi Pariwisata Stipary Yogyakarta. *Seminar Nasional Teknologi Informasi Dan Komunikasi, ISSN*, 2089–9815.

Suwidiyanti, & Anshori, I. (2021). School Strategy to Build Students' Social Solidarity During Online Learning. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, *5*(1), 28–41.

Thadi, R. (2020). Audit Komunikasi Organisasi Layanan Akademik di IAIN Bengkulu. *Jurnal Penelitian Komunikasi*, *23*(1), 89–100. https://doi.org/10.20422/jpk.v23i1.698

Yun, C. Z. (1998). Kualitas Global Manajemen Kualitas Total (TQM) di Singapura Airlines (SIA). *Jakarta: Pustaka Delapratasa*.

Zamroni, & Qatrunnada, W. (2021). Utilization of Digital Applications in Learning Assessment Utilization of Digital Applications in Learning Assessment. *Journal of Physics: Conference Series*, *1899*, 1–5. https://doi.org/10.1088/1742-6596/1899/1/012156