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Analysis of Education Costs Management System with Moka Pos in Al-Mufti Islamic School

Ine Lettysia

Gunadarma University, Department of Postgraduate Program, Depok, Indonesia

Abstract: ***The research aims to: (1) testing the quality of Moka Pos software in Al-Mufti Islamic School with the ISO 9126 Model has 6 characteristics namely functionality, reliability, usability, efficiency, maintainability and portability. (2) Perform a payment system analysis on Moka Pos based on PIECES analysis method. The research was conducted by interview methods and questionnaires to the administration section of Al-Mufti Islamic School. Subject of this research is Al-Mufti Islamic School and the object of the research is Moka Pos. Stages in this research are (1) identification of the problem. (2) Software quality testing. (3) System analysis. (4) Make reports. (5) Recommendations. The results of software testing with ISO 9126 Model shows that Moka Pos has fulfilled 5 characteristics, namely functionality, reliability, usability, maintainability and portability. However, usability gets an E score with a time of 6.4 seconds. While the results of research from the six PIECES analyzes, there are two that are still not in accordance with finance in Al-Mufti Islamic School, namely performance analysis and information analysis. Causing the resulting output needs to be recalculated by the financial department to become an accurate financial report.***

Keywords: Moka Pos, Accounting Information System, Point of Sales, Education Costs Management System.

1. Introduction

Application of Accounting Information Systems is a step in providing convenience and benefits for users and business entities in obtaining financial information for management decision making. The increasing development of technology and information makes educational institutions need to improve data processing capabilities in education payment systems, so they can have a competitive advantage and be able to compete with other institutions. The field of financial administration so far is still difficult to do because it still uses manual and simple methods.

The education cost payment application at Al-Mufti Islamic School uses the Point of Sales system. The Point of Sales system is set up so that it can present student tuition payment information. The output of the application is sent digitally via SMS / email to the parents' cellphones or via receipt. And the report output from the application can be printed via receipt or exported to Excel. The use of an appropriate system can make school financial reports more transparent and effective.

The Moka application is a cloud-based Point of Sales application. To use this application a business entity must make monthly or annual payments. Cloud is a combination of the use of computer technology and Internet-based development. Moka application is usually used for profit institutions. In Al-Mufti Islamic School, this application is used for educational institutions, namely non-profit institutions with payment systems that are very different from profit institutions.

Seeing the problem above becomes motivation for researchers to make an evaluation of the use of educational payment applications with Moka at Al-Mufti Islamic School. Software testing techniques in this research are ISO 9126 models and system analysis using the PIECES method. The PIECES method is used to evaluate various operational procedures in a business entity. This method was chosen because it can specifically describe the main points of the problem.

2. Research Methods

In the software quality testing phase in this research using the M'call, Boehm, FURPS and Dromey methods, namely ISO 9126. The ISO 9126 model has 6 characteristics and several sub-characteristics, namely the functionality test using the black box testing method, reliability test using WAPT 9.7, usability test with interviews using aspects of understandability, learnability, operability, and attractiveness, efficiency test with YSlow and GTMetrix, maintainability test with aspects of instrumentation, consistency, and simplicity, and portability test with Google Chrome, Mozilla Firefox, Opera and Internet Explorer.
System analysis is done by looking directly at the transaction process. Then arrange questions according to the PIECES analysis method. The data in this research are primary and secondary data. The data source comes from Al-Mufti islamic School in Tangerang City, Indonesia. Research time is from January to March 2020 by observing the payment transaction process and application usage.

3. Results and Discussion

In this research, after identifying the problem, researchers conducted Moka Pos software testing. The functionality testing is done by testing every feature in the application. Test the compatibility of the function and display. In reliability testing is done with the WAPT 9.7 application to measure stress testing on a website. In usability testing is done by giving a questionnaire to the Administration at the Al-Mufti Islamic School. Testing on efficiency is done by using GTMetrix with YSlow tools and Page Speed Monitor. For testing on maintainability, instrumentation, consistency

and simplicity are carried out. Whereas portability testing is done to see the display capabilities in various web browsers.
Based on software quality testing, it can be concluded that Moka Pos application has fulfilled 100% functionality, 78% usability, 100% reliability, maintanability and portability. However, for the aspect of efficiency, Moka Pos has E score of 6.4 seconds based on testing using GTMetrix tools namely Yslow and Page Speed Monitor.

After getting the results of the feasibility of software testing the system analysis will be performed. For system analysis using the PIECES principle at the Al-Mufti Islamic School, it can be said that the use of the Moka Pos application can speed up and simplify work. In the case of switching from one part to another does not require a long time because this system is not fixed on the internet connection or can still be used even if not in an internet connection. The transaction will then be saved automatically when it is connected again to the internet. Moka applications can also effectively replace manual systems that are less effective.

However, on the part of the customer, this application requires to fill in mobile phone numbers and email addresses, so that the guardian of students must deign to fill in their mobile phone numbers and email addresses.

School payments can be made more than one month in the Moka Pos application, but discount section cannot be made twice. Whereas for Grade 6 students in Semester 2 there is a cut in school fees due to the absence of extracurricular activities before the National Examination. This causes if students want to pay in 2 months or more must be in a different receipt.

The Moka Pos application can only group features in Group-Item-Variants so it needs a wider range of groups. Because the Al-Mufti Islamic School with different fields of education in one foundation requires many groups in the selected features.

Although at Al-Mufti Islamic School this application is not yet connected with the Journal. But this application has the ability to connect with the Journal Apps Store. So the limitations of this application can be completed.

Information analysis with PIECES at the Al-Mufti Islamic School, it can be said that the data Moka application can be processed easily through the system. The resulting output can be a daily financial report, but on certain days where large expenses can not be recorded because it will make the daily report to be a minus. The resulting output cannot directly become a monthly financial report, because there is data that must be managed again with manual is mainly for expenses with large nominal amounts and also expenditures against committee fee which is submitted to the school committee or enrichment cash and activity funds which are handed over directly to the principal.
The data in the moka application can generate payment information based on the customer but in the initial stages it is necessary to enter email and mobile number. Report information from the Moka application is sufficient in meeting the needs of educational institutions and can be used easily in decision making. Moka application has a fairly efficient usage fee for benefits that can simplify and provide good service to student guardians who have a usage period of 1 year and can extend the contract. Additional costs for using the moka application are modem, paper and internet fees. However, these costs also replace expenses in the procurement of paper, paper, ink, and stample. Moka application also supports the use of paper or paperless.

Analysis of control with the PIECES principle at Al-Mufti Islamic School, it can be said that login access has system security because each employee logs in with their own username and daily usage data will be recorded in the system. A good level of security from the moka application due to the absence of a delete system after the transaction. Substitution of new employees from old employees due to resignation can cause data lost and scattered, but this does not occur in the use of this application because it can easily collect data and have good system security.

However, in controlling the falsification of transaction evidence, this application has not been able to monitor it. That can be an evaluation where it would be better if the Moka application works together with a banking institution.
Efficiency analysis with the principle of PIECES at Al-Mufti Islamic School, it can be said that the application of Moka is quite efficient. Where input is easy to do and employees have done training in advance with the trainer. In every transaction with Moka Pos does not require a long time enough 1-2 minutes. Although based on tests with GTMetrix on the Moka Backoffice get E score. But according to users Moka Pos is more efficient than a manual system.

Analysis of services with the PIECES principle at the Al-Mufti Islamic School, it can be said that the Moka Pos application provides good services to users. This system provides additional services by sending receipts via email. The system can also find out the returns received after a payment transaction, so errors in financial calculations are rare. With this system, services for student guardians can be done quickly, precisely and accurately.

4. Conclusions

The results of the analysis show there are still deficiencies in Moka applications that are not in accordance with finances in educational institutions. This can occur because the Moka application itself is more widely used by profit business entities. So that the features in the Moka application do not match the features in the educational institution. From software testing with ISO 9126 Model shows that Moka Pos has fulfilled 5 characteristics, namely functionality, reliability, usability, maintainability and portability. However, usability gets an E score with a time of 6.4 seconds. While from the six PIECES analyzes, there are two that are not financially compatible at Al-Mufti Islamic School, namely performance analysis and information analysis. Causing the resulting output needs to be recalculated by the financial department to become an accurate financial report.

5. Recommendations

Moka Pos must create an application that suits the needs of each business entity. So it does not generalize all systems with the same system. Where the current system is more suitable for profit business entities.

Suggestion for Al-Mufti Islamic School is to consult with Moka Pos regarding the feature constraints that are not provided by Moka Pos. It also supports wider use of Moka Pos. In addition to using Moka Pos, Al-Mufti Islamic also needs to connect with the Journal Apps Store and work closely with banking institutions in providing Edu-Pay to improve the quality of school financial reports.

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Author Profile

Ine Lettysia received the S.E. degrees in Accounting from Gunadarma University in 2016. During 2016-2020, she study in Gunadarma University of Postgraduate Program in Accounting Information System. She now worked in Al-Mufti Islamic School.