DESIGN AND IMPLEMENTATION OF E-LAZISNU IN ZAKAT, INFAQ, AND SEDEKAH MANGEMENT WITH ANDROID BASED

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ABSTRACT

The amil zakat agency is a zakat management institution whose job is to receive and distribute zakat, infaq, and alms to people in need. In several sub-districts in Blitar Regency, the zakat, infaq, and alms management systems, in this case financial recording, financial reporting, and all matters relating to the entry and exit of money are still carried out using a paper-based recording system. Storing data in the form of reports printed on paper is considered insecure, because it could be that the accumulation of reports from year to year will cause the data to become obsolete and even disappear. This study proposes a financial management information system as a financial management medium. The purpose of this research is to develop an Android-based financial management information system as an alternative financial management medium for LAZISNU managers and to determine product feasibility. The research and development methodology used in this research is Research and Development (R&D). This methodology covers all matters related to development to produce quality software. Based on the trials, the results obtained were 82.5% from software experts, 90.5% from material experts, and 86.5% from user field tests. Based on these results, an Android-based financial management information system is feasible to use as a financial management medium with an average validation value of 86.5%.

Keywords: e-LAZISNU, Financial, Management, Mobile Aps, Android.

1. INTRODUCTION

Basically, technology is a set of useful tools to support human work (Wahab, Rose, & Osman, 2011). As technology develops today, there are many activities that rely on technology. So that technology becomes very important in everyday life, especially during the current pandemic. Covid-19 has forced people to limit themselves from having direct activities with others. This makes all community activities dependent on technology. Covid-19 has impacted all aspects of the sector, starting from the fields of education, economy, health, business, even the social aspects, namely the management of zakat, infaq, and alms.

Indonesia is a country where the majority of the population is Muslim. While some of Indonesia's population is still far from prosperous (Sodiq, 2015). Zakat is one of the fifth pillars of Islam, namely worship which has a very important position, both in terms of Islamic teachings and in improving the welfare of society. Basically, zakat, alms, and infaq are

activities of setting aside some assets to be given to less fortunate people. Allah SWT. promised to multiply the return for every treasure we set aside for others (Basid & Faizin, 2021).

The amil zakat agency is a zakat management institution whose job is to receive and distribute zakat, infaq, and alms to people in need (Batubara, n.d.). In several sub-districts in Blitar Regency, the zakat, infaq, and alms management systems, in this case financial recording, financial reporting, and all matters relating to the entry and exit of money are still carried out using a paper-based recording system. Even though manual recording is good enough, the use of paper will cause several problems, one of which is when we need data quickly, we will need sufficient time to find the data.

Besides being inefficient in time, this is also ineffective because we have to check data one by one. Storing data in the form of reports printed on paper is considered insecure, because it could be that the accumulation of reports from year to year will cause the data to become obsolete and even disappear. On the other hand, the managing institution must have accountability and transparency in financial management because it is a mandate, so that the calculation cannot be wrong and it must reach the people in need.

The phenomenon mentioned above must be overcome immediately by applying the technology that has developed at this time. The development of an information system with IoT (Internet of Things) technology is an option in solving the problems mentioned above. IoT is a technology that can connect anything to the internet based on a predefined protocol (Patel, Patel, & Scholar, 2016). IoT was chosen because this technology can be used to exchange information and communication to achieve goals, such as data integration, monitoring functions, and administration.

In addition to being more effective and efficient, the developed information system is more environmentally friendly. On the other hand, the management of zakat, infaq, and alms is related to finance where accountability and transparency are required in their management. The information system developed is one of the contributions to assist the government in realizing Good Public Governance of the Ministry of Religion, namely increasing accountability and transparency. Good and optimal management of zakat will have an impact on increasing the productive economy and reducing social inequality in today's society, especially among the poor and middle class. Meanwhile, there are several lecturers at UIN Sayyid Ali Rahmatullah who are members of the LAZISNU zakat, infaq and alms management institution to work together in managing zakat, infaq and alms for the underprivileged in Wonodadi District, Blitar Regency. Based on the problems mentioned above, this research focuses on the development of a mobile-based information system with the Android platform as a medium for financial management to increase efficiency at the Zakat Management Institution (LAZISNU) in Wonodadi District.

2. THEORY
This research has examined several related references as well as several previous studies.
   a. Zakat, Infaq, and Sadaqah
      Zakat, infaq and shadaqah are familiar things among Muslims. Zakat, infaq and shadaqah have also been known and carried out by Muslims for a long time. Zakat

literally means purification, growth, or blessing (Nasution, Nisa, Zakariah, & Zakariah, 2017). In terms of zakat means the obligation of a Muslim to issue a net value of wealth that does not exceed one nishab, given to mustahiq with several predetermined conditions. Zakat is part of the assets that must be issued by the obligatory zakat (muzakki) to be submitted to the recipient of zakat (mustahiq).

Infaq is the gift or donation of assets other than zakat for good (Endahwati, n.d.). So from the explanation of infaq above that giving out wealth properly and correctly is one of the measurements and indications of the nature of human piety to Allah SWT. Infaq given is one of the income for social funds, which is not bound by amount and time. Infaq does not know nishab like zakat, but infaq is issued by every believer, both those with high and low incomes.

Sadaqah is a gift given by a Muslim to another person spontaneously and voluntarily without being limited by time and a certain amount, a gift given by someone as a virtue that hopes for the pleasure of Allah SWT and only rewards (Hermawan & Rini, 2018). In sharia terminology, the meaning of shadaqah means spending part of one's assets or income for the purposes prescribed by Islamic teachings.

b. Management Information System

The system is a collection of objects such as people, resources, concepts, and procedures that are intended to perform certain functions or fulfill a purpose. Then the system is also a collection of components that interact together collectively to carry out goals (Sidh, n.d.). In general, the system consists of elements that are interconnected to form a single unit to carry out a main goal of the system. The main purpose of a digital system is to process data to produce information so that it needs to be supported by elements consisting of hardware, software and users (brainware).

The three elements of the system must be interconnected and form a single unit. Hardware without software means nothing, just inanimate objects. Both hardware and software also cannot function if no humans operate them. Data as a resource in an organization or company needs to be managed properly, computer-based data resource management emphasizes the importance of database management and its application in management information systems.

c. Mobile Aps (Android Based)

Android is a mobile operating system. Android doesn't differentiate between core apps and third-party apps. The Application Programming Interface (API) provided offers access to hardware, even cellphone data, or system data itself (Fadillah & Slamet, 2019). Android provides an open platform for developers to create applications that are used by various mobile devices. Android is currently the most popular mobile operating system in the world. The development of Android can not be separated from the role of the giant Google. Android was originally founded by Andy Rubin, Rich Minner, Nick Sears and Chris White in 2003 (Dewi, Anandita, Atmaja, & Aditama, n.d.).

Android application structure or application fundamentals are written in the Java programming language. Java code is compiled together with the resource files required

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by the application. Where the process is packaged by tools called apttools into the Android package. So it produces a file with the apk extension. This apk file is called an application, and can later be run on mobile devices. There are four components in the Android application, namely: (1) Activities are components for presenting the user interface to users; (2) Service is a component that does not have a user interface, but the service runs in the background; (3) Broadcast Receiver is a component that functions to receive and react to deliver notifications; and (4) Content Provider is a component that creates a specific collection of application data, so that it can be used by other applications.

d. Efficiency of Zakat, Infaq, and Sedekah Management

Nordiawan and Ayuningtyas argue that public sector organizations are considered to be more efficient if the efficiency ratio tends to be above one. The greater the ratio, the higher the level of efficiency (Suoth, Tinangon, & Rondonuwu, 2016). Efficiency must be compared with certain random numbers, such as the efficiency of the previous period or efficiency in other public sector organizations. The process of operational activities can be said to be efficient if a certain product or work result can be achieved with the lowest use of resources and funds (spending well). Efficiency indicators describe the relationship between the input of resources by an organizational unit (eg staff, wages, administrative costs) and the resulting output. Meanwhile, Adisasmita said that efficiency is an internal process or resource needed by an organization to produce one unit of output (Siregar & Bz, 2017). Therefore efficiency can be measured as the ratio of output to input.

Accountability is a way of accountability of the management or recipient of the trust to the giver of the trust for the management of the resources entrusted to him both vertically and horizontally. Another definition states that accountability is defined as the obligations of individuals or authorities who are entrusted with managing public resources and those concerned with them to be able to answer matters concerning their accountability. Accountability is closely related to instruments for control activities, especially in terms of achieving results in public services and conveying them transparently to the public (Rahmat & Mirnawati, 2020).

3. METHOD
A. Research and Development (R&D)

This study uses a Research and Development (R&D) research and development approach developed by Borg and Gall. This approach has a simple and sequential software development cycle. The software development cycle developed by Borg and Gall is shown in Figure 1 (Ermawati, Fatimah, & Utama, 2022).
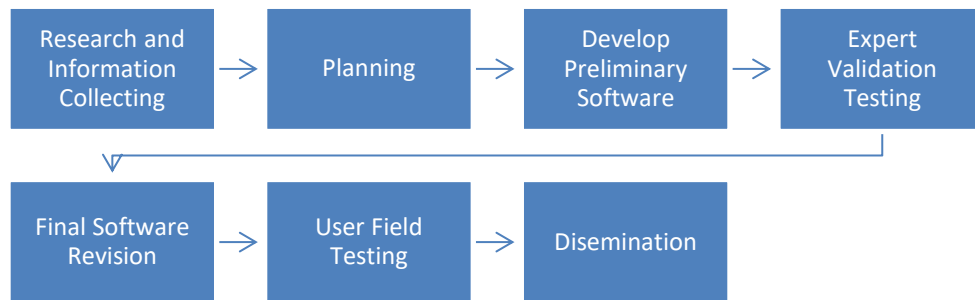
Figure 1. Software Development Cycle (Borg and Gall).

The Borg and Gall software development procedure is described as follows:

a. Research and Information Collecting

This stage is the initial stage of gathering information related to the system to be developed. All information needed for system development is carried out using observation techniques, interviews, and literature studies. Interviews were conducted with financial managers of zakat, infaq and alms funds at the LAZISNU institution, Wonodadi District, Blitar. This needs exploration is carried out to find out the business processes in managing zakat, infaq, and alms funds. Observations were made to find out the organizational structure of the LAZISNU institution. This is done to determine the role of the user who will use the system. Literature study was conducted to find references related to the system to be developed.

b. Planning

At this stage, product design planning is made, in this case the interface design and data base design. This is done in order to fulfill the software development objective, which is to make it easier for zakat, infaq, and alms fund managers to manage finances so that they are more efficient and accountable based on the data obtained during interviews and observations.

c. Develop Preliminary Software

This stage is the system development stage based on the design that was made in the previous stage. The development of this software includes the implementation of the flow of financial management concepts that have been obtained from interviews and observations.

d. Expert Validation Testing

This stage is the initial testing stage of the system carried out by material experts and software experts. The validator will provide an assessment using different assessment instruments from software aspects and financial management concepts.

Software experts are selected according to their expertise, namely experts in the field of software. In addition, software experts have educational qualifications of Masters in Computers. On the other hand, financial management experts are selected with educational qualifications Masters in Financial Management.

Furthermore, these two validators were asked to provide an assessment of the aspects of the financial management concept implemented in the system. The aim is to obtain a

qualitative and quantitative evaluation of the software being developed and to determine the level of feasibility of the software.

e. Final Software Revision

The revision of the financial management information system was carried out based on input from the two validators.

f. User Field Testing

At this stage field trials were carried out with end users, namely zakat, infaq, and alms financial fund managers at the LAZISNU institution, Wonodadi District, Blitar. This trial uses an assessment instrument that is given to the user after the trial to assess the feasibility of the software.

g. Dissemination

Dissemination is the dissemination of the final product. This stage is carried out by publishing the application to users after going through field trials.

B. Instrument and Data Analysis

The instrument used in this research is a questionnaire. This questionnaire is assessed using a Likert scale with the five categories of choices shown in Table 1.

Table 1. Likert Scale Assessment Categories

Level Percentage	Description
Score 5	Strongly agree
Score 4	Agree
Score 3	Simply Agree
Score 2	Disagree
Score 1	Strongly Disagree

The data that has been obtained from the questionnaire scores were analyzed using percentage data techniques. To calculate the percentage of answers using the following equation.

$$P = \frac{\sum x}{\sum xi} \; x \; 100\%$$

P   : Percentage
$\sum x$: Total value of respondents' answers in all items
$\sum x_i$: Total ideal score in one item
100%   : Constant

Meanwhile, as a basis for making decisions to revise learning media, the assessment qualification criteria are used, which were adapted from Arikunto (2010) as shown in Table 2.

Table 2. Percentage Analysis Validity Criteria

Level Percentage	Criteria	Description
81% - 100%	Very Good	Very Eligible
61% - 70%	Good	Decent
41% - 60%	Fairly	Good Inadequate
21% - 40%	Poor	Inadequate
<20%	Very Poor	Very Inadequate

The system being developed gets a positive response if the percentage obtained from the student response questionnaire is more than (≥) 61%. So it is concluded that if the data generated by the instrument is correct and valid, according to reality, then the instrument used is also valid.

4. RESULTS AND DISCUSSION

A. Initial Data Collection

Preliminary data collection was carried out by conducting interviews with managers of zakat, infaq, and alms financial funds at the LAZISNU institution. This interview was conducted to find out the media used in current financial management. From the interview results, the media used in the financial management of zakat, infaq, and alms funds are still carried out conventionally, namely using bookkeeping records. It is very inefficient. So we need a digital-based system that can be used in real time. The interviews also did not only look for business processes in financial management. The results of the interviews also found business processes that observed business processes. Contains research analysis and the latest findings found in research.

B. Planning

This stage produces a business process flow for zakat, infaq, and alms management information systems. The software used in building this system is the Unity Application. The developed system business process is shown in the following flowchart:
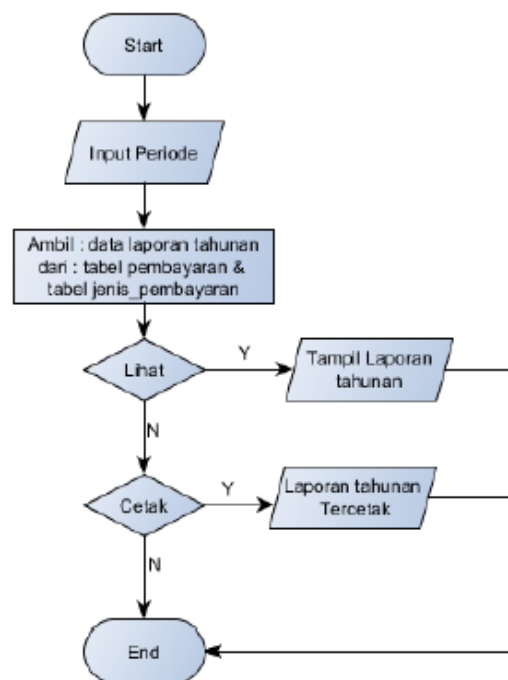

Figure 1. Android Based Financial Management Information System Business Process

C. Develop Preliminary Software

This stage produces a software product in the form of an Android-based zakat, infaq, and alms financial management information system. The system interface display is shown in the following figure.
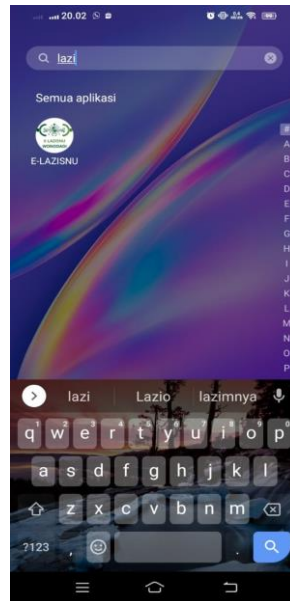
Figure 2. The LAZISNU application icon.

The display in Figure 2 is the appearance of the LAZISNU application icon after being downloaded and installed in .apk form.

Figure 3. Display of the main page of the LAZISNU application.

The display in Figure 3 illustrates the main page after opening the LAZSINU application on a mobile phone. In this view there is a menu icon to display the menu that is owned by this application. In addition, this application also displays the identity and slogan of the LAZISNU institution.
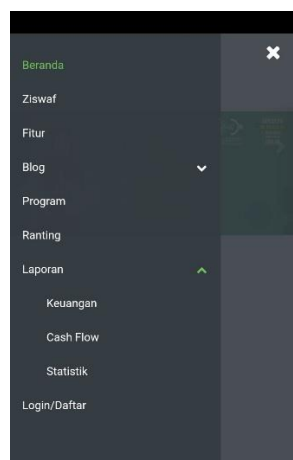

Figure 4. Display of LAZISNU Application Features.

The display above shows some of the features presented by the LAZISNU application. The features presented include:

1) Ziswaf, this feature functions to display information about zakat and waqf.
2) Features, this feature contains information on special features related to financial management such as Bank Cash, Income Entry, Income Approve, Infaq Receh, Full Reports, Master Data, Editable and Up to Date, and Guaranteed Security.
3) Blog, this feature contains news, wisdom, figures, and videos about zakat, infaq, and alms fund distribution activities.
4) Program, this feature contains activities or programs such as training and mentoring by LAZISNU institutions for the community.
5) Twigs, this feature contains contact information for managers of zakat, infaq, and shadaqah funds in the branches of Kec. Wonodadi.
6) Reports, this feature consists of other sub features, such as Finance, Cashflow, Statistics. Financial reports of zakat, infaq and shadaqah management institutions in all Wonodadi District areas. Cash flow reports for zakat, infaq and shadaqah management institutions in all areas of the Wonodadi District. Statistical Report of zakat, infaq, and shadaqah management institutions in all Wonodadi District areas.
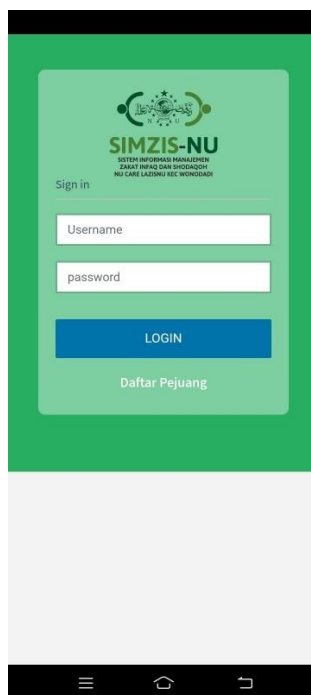

Figure 5. Display of the LAZISNU Application Login Feature.

Furthermore, there is a login feature in the LAZISNU application. Figure 5 shows the login page that functions so that users can get access rights. Users only need to enter the username and password that was previously registered.
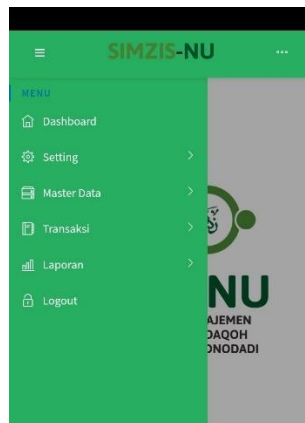
Figure 6. Display of Admin User Main Page Features on the LAZISNU Application.

After successfully logging in, the user will be taken to the main view shown in Figure 6. The display above is the display of the user as admin. There are several features in the admin view, including Settings, Master Data, Transactions, Reports, and Logout. Figure 7 is an example of how the Transaction Report will look after selecting the Report feature. In this feature, users can print reports for each village according to their needs and for a certain time period.
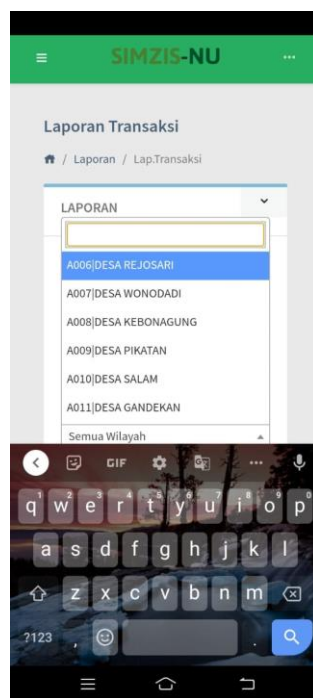

Figure 7. Display of the Report Feature on the LAZISNU Application.

 D. Expert Validation Testing

The initial testing phase of the system consists of two aspects, namely material testing and software testing. This test was carried out by material expert test financial management and software experts. The material expert on financial management is Dr. M. Farih Fahmi, M.Pd. with expertise in financial management. Meanwhile, the software expert is Rahmad Syaifudin, S.Kom. M.Eng with his expertise as a software engineer. The validator fills out a questionnaire containing statements related to system or application testing. The results of the system validation test from the software aspect are explained as follows:
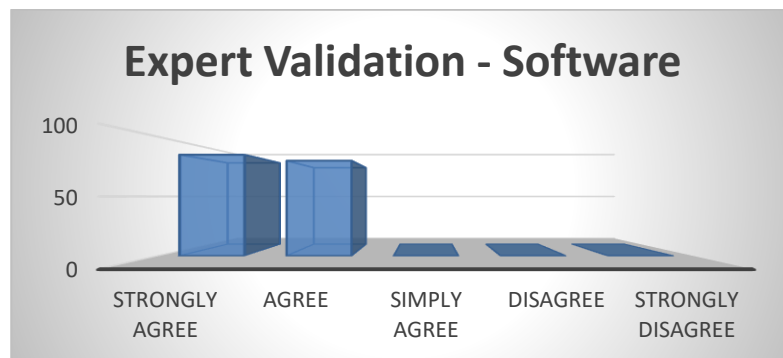
Figure 8. Software expert test results.

Based on the evaluation of software experts, as shown in Figure 8, a rating of 82.5% was obtained. The result of this score is in the Very Eligible category. From this assessment it was concluded that the software in the form of the LAZISNU application had been declared feasible by software experts.
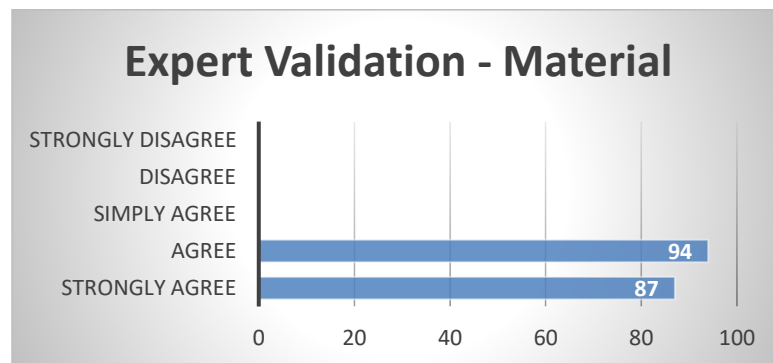

Figure 9. Material expert test results.

Based on the calculation of the quantitative assessment data from the material experts shown in Figure 9, an overall percentage score is obtained with a total of 90.5%. This score shows very feasible criteria, and it can be concluded that software with financial management business processes is feasible to use.

E. Final Software Revision

In Table 3 it can be seen briefly and clearly the improvements proposed by the software expert validator, these improvements require 1 revision according to input and suggestions by the software expert validator. After being revised, the validator stated that this Android-based financial management information system was feasible for field trials.

Table 3. Expert Validation Recommendation

Recommendation
Software Expert
1. Add institution information on the main page
2. Color lacks contrast
Material Expert
1. The color of the writing is contrasted so that the readability can be clear

 F.   User Field Testing

This stage aims to test the system with users in the field. This field trial involved 15 people managing zakat, infaq, and alms funds. The test results at this stage are shown in Figure 10.
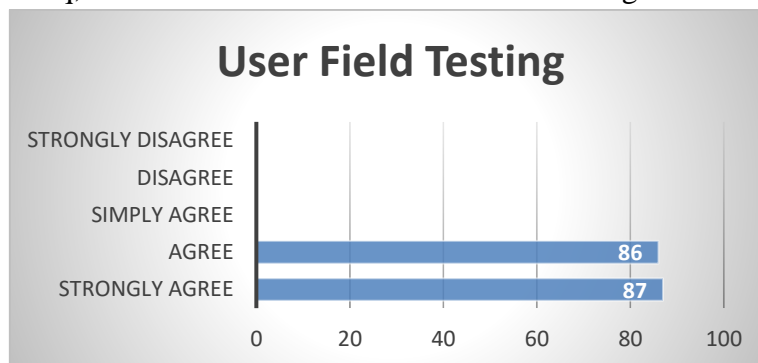

Figure 10. The results of the material expert test.

Figure 10 shows a graph of filling out a questionnaire that tends to choose Strongly Agree and Agree for the system being developed. These results indicate that the feasibility of Android-based software products has a percentage of 86.5%. These results indicate that the resulting product is suitable for use.

 G. Dissemination

At this stage, the process of disseminating Android-based software products is carried out after being declared eligible for use. This feasibility level has gone through the stages of expert trials and user trials. The product dissemination process is carried out through Playstore on mobile phones with the Android operating system.

Overall Data Analysis

Based on software and material expert validation tests, field user tests produced the following data. Based on the percentage results, the zakat, infaq, and alms fund management information system is feasible to be used as a medium for managing financial funds with an average value of 86.5%.

Table 4. The average of Expert Validation Result

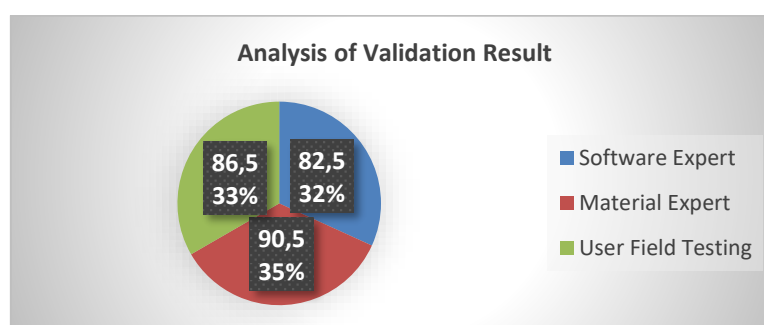| No	Validation	The Result
1	Software Expert	82,5
2	Material Expert	90,5
3	User Field Testing	86,5
Average of Validation		**86,5**

Figure 11. Analysis of validation results.

5. CONCLUSIONS AND SUGGESTIONS

Based on the results of research and development, it can be concluded that the Android-based financial management information system has the appropriate criteria with an average percentage of 86.5%, so that this financial management information system can be used as a medium for financial management of zakat, infaq, and alms funds in institutions LAZISNU, Wonodadi District, Blitar.

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