Use of Smartapps for administrative service based paperless system

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Abstract. This study aims to streamline the use of information systems in supporting the reduction in the use of paper media as for administrative services. Smartapps is an integrated information system or one-door service aimed at providing information service related to administration including correspondence, attendance checks, and attendance report printing. Paperless is a method used to reduce paper use by storing documents and data digitally and stored in digital storage. The Smartapps system is used to address email administration services, check attendance, and attendance reports that still use paper media. The results obtained are to facilitate correspondence services, check attendance, and attendance reports by reducing paper use or paperless systems. With the Smartapps system, manual activities in correspondence, attendance checking, and attendance reports can reduce several stages of administrative services, so that services can be made effective with a 50% effectiveness rate. This reduction in manual stages results in speed, reliability and effectiveness of administrative services.

1. Introduction
Nowadays, the development of technology has become one of the needs in our lives, where technology has changed the way people communicate, share information and interact. The use of technology has helped organizations improve better service, and has the accessibility and availability of fast information [1]. Likewise, with every administrative service that is available in each company related to correspondence, checking attendance reports, and printing attendance reports is very important in the continuity of the performance of a company. Many administrative processes still use manual systems or based on the use of paper media in the administrative process, the manual use of paper media has several disadvantages including taking a long time, being ineffective, and producing a lot of paper waste [2]. Information technology system is one tool to support the process of change from manual to paperless system based. Paperless systems make information technology a substitute for paper use such as electronic mail, electronic learning, documentation, and social networks [3].

Previous research has used a lot of technology-based paperless systems in an effort to reduce paper use in the administrative process. Launders and friends use an electronic-based system in an effort to apply prescription systems for inpatient care for patients in a hospital. The results can make it easier for patients to choose the prescription used [4]. Chen uses a paperless system to reduce paper use in the meeting process, the results show that the paperless system can effectively reduce paper and reduce operating time [2]. Laura applied technology in universities to effectively support administrative processes [5]. Employee attendance records using biometric technology have been used by Oloyede and friends. Attendance recording based on biometric technology is a strategy to increase
employee productivity and attendance [10]. In this study, the use of information technology in the administrative process to simplify and speed up the process. Smartapps is an information system designed to facilitate users in the administration process of correspondence, checking attendance reports, and printing attendance reports. The use of Smartapps aims to reduce administrative processes in correspondence, check attendance data, and print paperless attendance reports.

2. Methods
2.1 Correspondence Process
Figure 1 shows Flowchart Letter of administration:

![Figure 1. Flowchart Letter of administration](image)

The correspondence process is usually used by every department for various purposes. This process usually is done manually. Each department will relate to and communicate with each other if there is a matter conveyed. One of them, filing letters such as the use of radio frequency identification cards as identity. The department that submits will use the letter for the submission process, after which the intended department will reply to the letter. In this case, the process is like the Figure 1. The department will submit a letter then the letter is printed and then sent to the intended department. After that, the department that filled awaits the process of receiving and replying to the letter by the intended department. If you agree, a letter of reply will be sent. This is not effective, because it requires a long process and uses excessive paper media. In fact, in the current technological development, we need a new era with ICT-based processes in several services tailored to each service [8].
2.2 Process Print Attendance Report

Figure 2 shows the process of printing manual attendance report data used:

![Flowchart Print Attendance Report](image)

The administrator will create an attendance data report, and then print the report according to each department. After printing, each report will be sent to each department as proof of the report. This process is not effective, given the large number of processes and the large number of paper uses for printing reports. With the many processes of administrative services such as correspondence, checking attendance and printing reports are still manual. The use of a paperless system is a way to reduce or make it effective

3. Results and Discussion

3.1 Smartapps Business Process

Smartapps is an integrated information system or one-door service aimed at providing information services related to mailing administration, checking attendance data, and printing attendance reports. The process of recording attendance requires a good monitoring system [9] (see Figure 3).
**Smartapps Integrated Information Systems**

Figure 3 is an overview of Smartapps systems that are used to serve in matters of correspondence, checking attendance data, and printing attendance reports. The process consists of several components, namely users, administrators, and website-based service systems. Administrators are users who can receive all submissions of letters, and monitor the Smartapps service system. Users in this case are Smartapps system users on the client side. Meanwhile, Smartapps service is a website-based service to fulfill correspondence needs, check attendance data, and print attendance reports. This service aims to facilitate each user in the process of submitting letters, checking attendance data, and printing attendance reports. In addition, users can communicate with the administrator for each service that is used (see Figure 4).
In general, the process of using Smartapps in supporting the paperless system for administrative services is shown in Figure 4. Every user and administrator uses the Smartapps system. Users can submit correspondence or process checks and print attendance reports. The stages of working on Smartapps are as follows:

1. The user opens the Smartapps application.
2. Then, login users do each user.
3. After that, the user can choose whether to send a letter or check and print attendance data.
4. If you are going to do a correspondence, then the correspondence system is then selected and immediately make a letter and send the process of submitting a letter through the system.
5. If you choose the attendance system, then there will be options related to checking attendance data or printing attendance reports.
6. If the user chooses to check attendance data, the attendance data will be displayed.
7. If you choose to print attendance data reports, then the data is displayed and can be printed.

All processes for correspondence administration services, checking attendance data, and printing attendance reports using information systems. This information system is intended to reduce paper use in each service, so that the system is more organized and more effective. Overall, paperless-based process change systems have a very large positive impact [7].
Effectiveness of Smartapps with manual procedures (See table 1).

Table 1. Table number of procedures manual and Smartapps

| Amount of Correspondence Procedure or Process | Amount of Procedure or Process Checks and Print Attendance Data |
|---------------------------------------------|---------------------------------------------------------------|
| Manual                                      | Smartapps                                                   |
| Manual                                      | Smartapps                                                   |
| 6                                           | 3                                                           |
| 10                                          | 5                                                           |

Table 1 shows a comparison of the effectiveness of steps or service procedures used in the administrative service process, checking attendance and printing attendance reports manually and using the Smartapps information system. Comparison of the number of administrative service activities manually can be done in a number of 6 steps, while using the Smartapps system the procedure can be reached in just 3 steps. Whereas, the process of checking and printing attendance reports, takes the number of steps manually with 10 procedures whereas Smartapps can be reached in only 5 steps. Overall, both the administrative service process and the process of checking attendance data and printing attendance reports using Smartapps can be more effective with an effectiveness value of 50% of the number of manual processes. The effectiveness of using this technology can affect every process used. The use of paperless system is not to eliminate stages at each process, but replacing paper media at each stage to be without paper [2]. In addition, the technology is very important to support every process in the administration of the college environment [5]. Then the use of paperless system is very in line with the utilization of current technology.

4. Conclusion
Smartapps can be used as integrated services for administrative service processes, attendance checks, and attendance report printing. Smartapps provide benefits to reduce the number of procedures that must be done in the administrative service process and attendance with the average number of services reduced by 50% from the manual process.

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