

Conference Paper

How to Improve the Effectiveness of School Archives Management in the Industrial Revolution Era 4.0?

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Abstract

The 4.0 era of industrial revolution has impacts on all aspects of life including management aspects of school administration. Fast and accurate information needs in education require schools to integrate ICT in archives management. This study aims to describe and analyze the effectiveness of school records management. It is a qualitative study. The object of this study is a senior high school at Semarang city. Data collection techniques used interviews, observation and documentation. The results of the study showed that school archives management has not been effective. It is caused by the lack of ability of archives management officers, archival inadequate infrastructure and the school does not have standards for school operational procedure archives management.

Keywords: Effectiveness, Management, Archives, Industrial Revolution 4.0

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1. Introduction

The era of the industrial revolution 4.0 impacts all aspects of life including the educational aspects. Schools as an educational institution should be able to follow the technological development in the era of industrial revolution 4.0. School records management governance is one aspect that should get the attention of the school management. Demands will need accurate information quickly and become one of the characteristics of the industrial revolution 4.0. According [1] to speed development of information technology in the digital age in the last two decades have brought an essential impact in the field of archives. Paper-based records management prior to a concentration was replaced by ICT-based electronic format. It also impacts on records management in schools should be transformed from manual to digital.

Results of the study conducted by [2] shows that the archive in school governance manual that lasts is not effective because it can not provide the carrying capacity of documents and information quickly and accurately. It is consistent with the study of

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[3] indicates that the handling of the archive are both in the organization will increase accountability in the speed and accuracy of information. Speed of delivery of information will be met if the school is able to transform from manual records management towards digital. The next study is the study of [4] suggest that the low carrying capacity of the document to the school accountability caused by poor management of the school archives. Archival management is still a traditional school for not utilizing advances in technology. So can not give information quickly and accurately when needed.

Archive is a center of recollection for the organization, including the school as an educational institution. Good records management will be able to meet the demanding needs of the information in the era of industrial revolution 4.0. The use of technology in records management will reduce the difficulty in recovery of archives and provide back up data on the archive manually. Attendance records in electronic format offers a number of facilities and opportunities that were previously not owned archives in physical format in management [1].

Based on the results [4] on the archival management school at the private high school in Central Java province, it shows that archival management school is not optimal. From 961 private high schools in Central Java archives management school no one has entered both categories; they are mostly at neutral category. It is caused by the lack of commitment of the school management school archives. It also applied to archival management is still traditional and less use of technological progress.

The use of technology in the school archives governance in the era of industrial revolution 4.0 is a necessity that can not be avoided by the institution. Schools that previously managed the archives and documents in paper form can not avoid the necessity to improve technically and policies that govern them.

2. Literature Review

2.1. Files

[5] concerning the Filing, it is stated that filing are related with archives. Archives means a place to save. By the term archive is a recording of activities or events in various forms and media in accordance with the development of information and communication technologies have made and received by state agencies, regional government, educational institutions, companies, political organizations, community organizations, and individuals in the implementation of social, civic and the state. Archive has a character called archival characteristics, which can distinguish the characteristics

of archival quality. Characteristics of the archive that is authentic, legal, unique, and reliable.

Archive should be authentic. an archive of information attached to the original form (except electronic archives), include; content, structure and context. Legal, the archives are created as documentation to support the tasks and activities, have the status of official proof material for decisions and implementation. Unique is not mass created or duplicated, different archives with books, journals and other publicity materials. Reliable, trustworthy archives existence so that it can be used as material to support the implementation of activities.

For an organization, the archive has a very important value. To be a professional and qualified organizations then have to implement a system of good and proper administration. According [6] archival storage is the procedure for handling slips according to the rules and procedures applicable to the given three (3) main elements that include the storage, placement and retrieval.

Archive storage system is a storage system that is used in a letter to the ease of work can be created storage and retrieval can be done quickly and accurately when the mail stored at any time required. In the archive management activities there are five (5) archival storage systems, namely: (1) The alphabetical system, (2) the number system, (3) the system date, (4) the subject matter, and (5) region. [7]

2.2. Integrated Archive Record (IAR) / Dual Record Archive (DAR)

Integrated Archive Record (IAR) is the term used to describe an archive management archive consisting of print and non-print. According [8] explains that the DAR is an archive that is designed to manage the technology from two different sources, namely electronic resources and printed paper sources that can be accessed via a short distance and long distance. According to archivists and technology in the UK revealed that the other terms of the IAR is a way of managing archives DAR which jointly compile a digital archive with print archives [9].

IAR or DAR concept retains the authenticity of the digital archive of conventional and integrated manner without subordinating other archives. The difference between a digital archive with DAR. DAR which still has a permanent archive printed according to the digital archives, digital archives which seeks want to change all its archives into digital form. According [8] IAR has advantages as follows: 1) The available data sources more diverse and, 2) more effective, archivists do not have to search the archives to see the record book of the agenda, but can see archive with index cards that have

been applied digital information system, 3) easy recovery of archives, 4) long-lasting data storage, 5) archive data can be updated easily, and 6) a place of storage requires little space.

3. The Research Methods

This the study is a qualitative the study using descriptive methods. Subjects consisted of 10 schools. It used purposive sampling technique. The schools, which became the subject of the study are high schools at Semarang and they already used ICT in the management of school archives. Those ten schools are SMAN 1, SMAN 2, SMAN 3, SMAN 4, SMAN 5, SMAN 6, SMAN 11, SMAN 12, SMAN 14 and SMAN 15. Data collection techniques using interviews, observation and documentation. Informants in this study consists of the principal, teachers, Administrative Officer, students, school committee and parents

Collected data was processed using descriptive statistics to describe / presents data on the enforceability of integrated ICT-based archive records, as well as a description of the use of ICT in schools records management, records management facility availability, as well as the competence of management personnel records. Qualitative data analysis is conducted continuously since the beginning of the study until the end of the study. Data analysis technique refers to a descriptive analysis with interactive techniques of [10], includes the following phases: (1) data collection; (2) data reduction; (3) data display; and (4) drawing conclusions.

4. Finding and Discussion

4.1. Implementation of Archival Management at Schools

The accountability of school performance both to internal parties and external parties must be supported by complete and accurate documents. The availability of supporting reports and information documents to internal and external parties will be able to increase school accountability. School accountability is an effort to account for all school activities, both legally and morally to related parties, both in the form of success and failure of planned activities. Accountability according to [11] consists of two types, namely internal and external accountability.

Accountability of academic performance related to school accountability for administering education is part of school accountability. Schools must be able to account for

performance to internal and external parties. The accountability is ideally supported by authentic documents that are complete and accurate. However, the facts in the field show that schools have not been able to provide authentic documents to support school accountability in a complete, fast and accurate manner. Based on the results of observations and interviews, the management of school filing has not optimal.

The documents produced at each stage of the school activity are not managed properly. So that it is difficult to find it again, even documents are missing. In addition, many documents also accumulate in the administrative space. Poor management of school documents has resulted in difficulty in finding documents that will be used as supporting evidence for accountability reports or when providing information to internal and external parties. Archival management in schools has also not utilized technology optimally. The process of recording documents is still manually using the agenda book. Manually recording has a disadvantage if the registrar is not orderly and also requires a long time in tracking documents. Even though in the industrial revolution era 4.0 needed complete data and accurate data. It is an absolute necessity. In summary, the flow of archival management that takes place in schools so far can be seen in Figure 1.

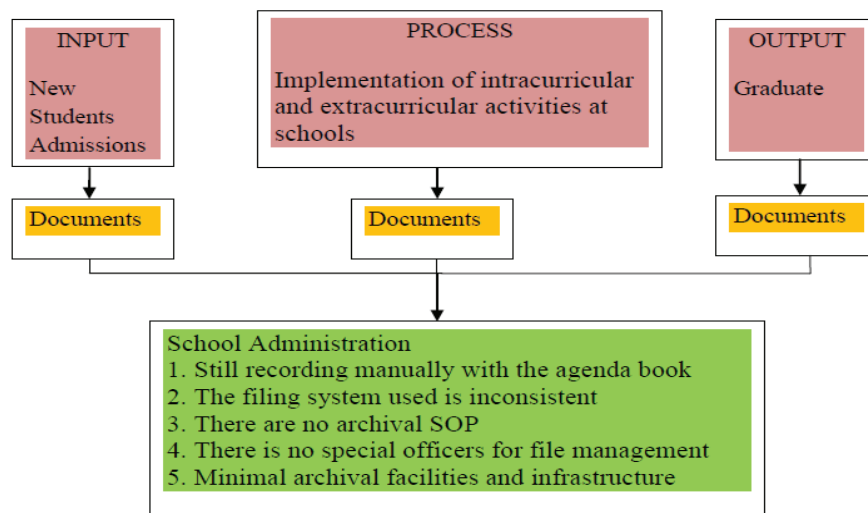


Figure 1: Implementation of Archival Management at Schools.

Based on Figure 1, it can be seen that the management of school archives that have been going on so far has not been in accordance with the correct governance of the archive. The school documents produced at each stage of the school activity are kept in the administrative section but in the recording process they are still manual and stored with makeshift infrastructure. In addition, in the archive management process there are no special officers who manage school records. Schools also do not compile

archival SOP so that the process of borrowing archives cannot be monitored properly. This condition causes documents to be tucked away and can even be lost. One solution to improve the effectiveness of school archive management is by integrative archive record.

Integrated Archive Record to Improve the Effectiveness of School Filing Management Based on the findings of the research related to the management of school archives, it is necessary to develop a school archive management model that integrates technology in archive management. Problems in recording documents can be minimized by using e-agenda in documents recording, data backup can be done using e-archive that accompanies file storage manually. The use of technology aims to overcome weaknesses in managing records manually, mainly in the rediscovery of archives. Whereas manuals are still implemented for legal evidence. Stages of Integrated Archive Records, there are three main stages, namely recording records in e-agenda, document scanner stage and document storage stage. The procedure in filing management with integrated archive record can be briefly seen in Figure 2.

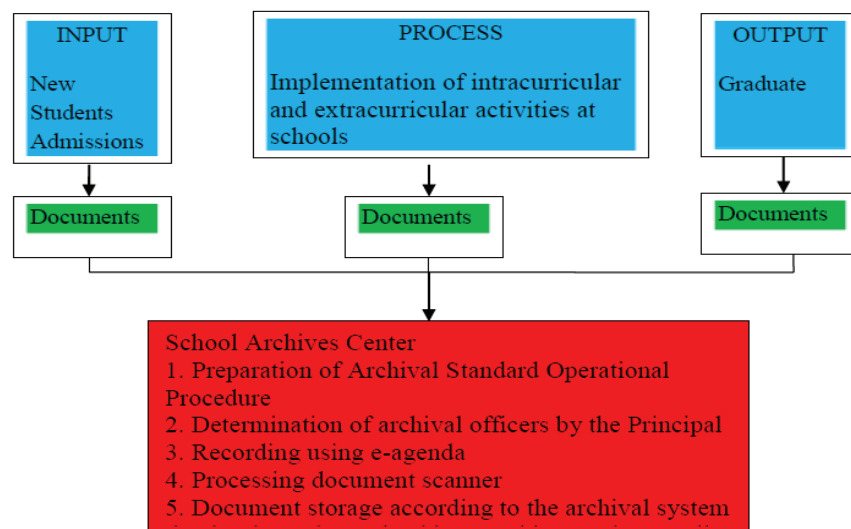


Figure 2: The procedure in filing management with integrated archive record.

Management of school archives with the integrated archive record for archival management is no longer in business administration but by forming a school archive center. This school archive center is managed by an archive officer set by the Principal. To ensure the smooth and orderly management of school records, the school must prepare an SOP for school archives and determine which archival system to use. According to [5], the archive storage system has five systems, namely: 1) alphabetical system, 2) chronological system, 3) basic question system, 4) regional system, and 5) number

system. Filing system according to [12] and [13] is a series of subsystems in archival management that work together to achieve the goal so that the archive is organized in information units ready to use for operational purposes with the principle that only the right information is used by a the right organization for the right interests and useful at the right time at the minimum cost.

School filing management will be effective also determined by human resources who have competence in the field of filing. Archivists according to [5] are those who have competence in the field of filing obtained through formal education through formal education and / or archival education and training and have functions, duties, and responsibilities in carrying out archival activities. Implementation criteria for the third model that must be fulfilled by the school are archival facilities and infrastructure. The next criterion for creating effective archival management requires adequate archival facilities and infrastructure. Archival facilities and infrastructure consist of archival management, infrastructure, and archiving equipment instruments. Regarding archival facilities and infrastructure the Principal must be committed to providing school archival facilities and infrastructure.

5. Conclusion

Management of school records that have been going on so far is not effective. It is caused by the lack of ability of archives management officers, archival inadequate infrastructure and the school does not have standards for school operational procedure archives management. Therefore can be recommended are 1) Headmaster advised to have a strong commitment in managing school records by setting SOP for school archives, 2) Headmaster appoints special staff manager of records 3) The school provides archival facilities and infrastructure. advice that may be recommended by the researchers is that 1) Headmaster advised to have a strong commitment in the management of school records with archival SOP establishes schools, 2) Headmaster appoint a special officer archives 3) The school provides facilities of archives.

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