Implementation of Risk Management with the ISO 31000 Approach in an Effort to Improve the Performance of Educational Services

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Abstract: The implementation of a rapidly developing library service system can create threatening risks caused by the failure of library managers to assess the source of risk threats. Risks can take the form of events and conditions that result in disruption of information services and the decision-making process stops. The aim of this research is to describe the implementation of library service risk management at the Palembang Aviation Polytechnic Library using the ISO 31000 approach to determine the factors that influence the implementation of library risk management, especially in library material management activities. Library risk management at the Palembang Aviation Polytechnic Library has been implemented to anticipate various sources of risk threats by carrying out risk assessment, risk mitigation and risk evaluation activities through the Government Internal Control System (SPIP) in general.

Keywords: ISO 31000, Library, Risk Management.

A. Introduction

Palembang Aviation Polytechnic is a state university within the Ministry of Transportation which has the task of providing vocational education, research and community service in the field of aviation. Since 1989, Palembang Aviation Region II Aviation Education and Training has provided short-term education and training, such as training in the field of aviation security, airports and aviation safety.

Currently, the Palembang Aviation Polytechnic has 3 study programs, namely the Bachelor of Applied Airport Engineering Study Program (PSST TRBU), the Diploma Three Study Program in Airport Management (PSDT MBU), the Diploma Three Study Program in Aviation Rescue and Fire Fighting (PSDT PPKP). Polytechnic has PRIME values (*Professional, Responsible, Innovation, Modern, Excellent*) and the motto *The Best Airmen Are Trained Here.* The implementation of teaching at the Palembang Aviation Polytechnic follows national higher education standards as the main performance indicators and higher and other education standards as the main indicators.

Palembang Aviation Polytechnic has many educational facilities and infrastructure, one of which is a library. The Palembang Aviation Polytechnic Library is located within the campus area and is close to other educational service infrastructure such as classes and dormitories. The library unit consists of 2 floors with an area of 300 m².

Various factors are thought to cause the quality of education, including educational policies and administration that use input-output analysis but are not implemented comprehensively and focus too much on the input aspect even though the educational process really determines the achievement of the expected educational output. The next factor that often becomes an obstacle in the process of providing education is the role of the community in implementing education (Deswary, 2012).

The Palembang Poltekbang library is equipped with high-speed internet facilities. Management and organization have begun to be structured well and have been stated in the Decree of the Director of the Palembang Aviation Polytechnic. The Palembang Aviation Polytechnic Library has carried out automation with the SLIMs application which is connected to a LAN. In terms of collections, development is still not significant because collection procurement is not carried out every year. Library Palembang Aviation Polytechnic is still continuing try develop yourself by adding the latest collections, developing systems, and give excellent service to user.

Aviation Polytechnic Library has approximately 748 book titles and 1,525 copies of books, all of which are ready to be circulated (loaned) to members library. The reference collection owned by the Palembang Aviation Polytechnic Library is approximately 119 copies of books (references) which include bibliographic references, directory, dictionary, encyclopedia, and sources reference other which is used as a reference in searching something information.

This research began with the low number of library visitors in the last 3 years based on data obtained from Palembang Poltekbang library librarians, namely in 2019 there were 329 people/year, in 2020 there were 56 people/year, in 2021 there were 38 people/year, in 2022 there were 577 person/year. There was a very significant decline in 2020 and 2021 due to Covid 19 conditions so that the learning process was carried out online. In 2022 the number of library visitors will increase again

Improving the quality and performance of educational services, especially library units for cadets and cadets as well as lecturers at Poltekbang Palembang, is necessary, one of which is risk management. Risk management is very important for the continuity of a business or activity. If a disaster occurs, such as fire or damage, the library unit will experience huge losses, which can hamper, disrupt or even destroy the continuity of operational activities. Risk management is a tool to protect the company from any possible harm (Ramli, 2010).

Risk assessment is one of the basic components of an organization's risk management process. Risk assessments are used to identify, estimate, and prioritize risks to organizational operations, organizational assets, individuals, and other organizations (Winoto et al., 2014).

The emergence of various threats and risks can hamper or even paralyze activities in the system, one of which is caused by the information technology used. For this reason, it is necessary to carry out a risk analysis of various possible risks that arise in the system. Based on the results of the analysis, you will get a picture of the physical assets along with the possible risks that arise in these assets. Information Technology Risk Analysis Based on Risk Management using ISO 31000, so that organizations can carry out prevention, handling and improvement in the future according to the level of risk priority (Rilyani et al., 2015).

From the results of a preliminary survey conducted by researchers on librarians in the Palembang Aviation Polytechnic library unit by conducting interviews and field observations, it was found that in the library unit there are several points that can cause risks in the management of library materials, such as limited collections, collection arrangements, services. provided to users, ease of finding collections, and maintaining the quality of available books which need to be mitigated.

Based on the conditions described above, the author conducted research entitled Implementation of Risk Management Using the ISO 31000 Approach in Efforts to Improve the Performance of Education Services which aims to manage the risks that have occurred and/or will occur in order to improve the performance of educational services, especially the Palembang Poltekbang library unit.

The definition of risk according to H. Abbas Salim is uncertainty or uncertainty which may give rise to losses (Salim, 1998). Ferdinand Silalahi defines risk as a deviation from actual results from those expected or results that are different from those expected (Silalahi, 1997). Kasidi stated that risk is the possibility of deviation from expectations which could result in losses (Kasidi, 2010).

From the definitions above, it can be concluded that risk is an event or event that has a dangerous impact on an organization or company, causing losses in the future. In other words, "Possibility" indicates the existence of uncertainty which causes risk to grow (Darmawi, 2006).

Risk is an approach taken to risk, namely by understanding, identifying and evaluating the risks of a project. Risk management is a process that identifies, measures, develops, selects and manages options to deal with these risks (Kerzner, 1998). ISO 31000 is an international standard issued by the International Organization for Standardization (ISO) to manage risk. This international standard can be used for

various individual, group and organizational activities. The use of this standard is general, meaning, it can be used for various industrial sectors (Leo & Victor, 2014).

Library, according to Ibrahim (2014, p. 3) is a certain institution or body that manages books or other forms of library materials or other than books such as newspapers, magazines and so on which are arranged, stored and arranged regularly according to a system so that it makes it easier for readers to find a book that they want and can use. each user as a source of information. Management of library materials, according **to** Malik (2014) states that the processing of library materials is a systematic activity that starts from the entry of library materials until they are ready for use by users (readers) and makes it easy to browse/search for information on the library materials.

Research conducted by Sumarni (2021) with the title improving the quality of elementary school libraries. This research aims to determine and describe library quality improvement. Research written by Aji et al. (2021) in his journal entitled Information System Risk Management in the Purwokerto Regional Library. This research aims to carry out a risk assessment on the information system in the Purwokerto Regional Library. Research conducted by Megawati et al. (2020) Business processes can be disrupted due to various sources of risk threats. For this reason, it is necessary to carry out risk management in an information system that is useful for identifying risks, measuring the magnitude of the impact of risks, making risk assessments and creating mitigation strategies to reduce risks.

B. Methods

Research methods according to Arikunto (1986) are "a way of thinking and acting that is well prepared to carry out research and to achieve a research objective." In this research the author used a description/ *survey method*, in the form of a job and activity analysis method. According to Nana Syaodih Sukmadinata (2010), the descriptive method is to study forms of activity, characteristics, changes, relationships, similarities and differences with other phenomena. An example of a form of descriptive research is descriptive research in the field of education and curriculum.

This study is descriptive in nature, namely reporting observations of phenomena in the field or social. Qualitative assessment (including historical and descriptive assessment) is an assessment that does not use mathematical, statistical or computer models. This study also uses a descriptive type of study, namely a type of study that only describes, summarizes various existing conditions and situations, and tries to describe the concrete conditions of the object of study and then a description of the object of study will be produced.

Observations are carried out to determine the state of the problem according to the topic to be discussed. Margono defines observation as the activity of systematically

observing and recording the signs that appear on the research object (Rahmadi, 2011). The interview stage was carried out with the librarian of the Palembang Poltekbang library to find out what risks occurred in the Palembang Poltekbang library. Interviews can be the main assistant to the observation method (Notoatmodjo, 2012). The aim of this type of interview is to find problems more openly, where the party being interviewed is asked for their opinions and ideas. According to Rachmawati (2007), This type of interview is flexible and the researcher can follow the participants' interests and thoughts. Literature study techniques according to Sugiyono (2019), Literature study is a theoretical study that studies various other references as well as the results of previous research relating to the values, culture and norms that develop in the social situation being studied, which is useful for obtaining a theoretical basis regarding the problem to be studied. The risk treatment faced consists of four treatment options, namely avoiding, sharing, reducing and accepting risks based on the scope of operational risk (Akbar et al., 2020).

The data analysis used is descriptive qualitative, namely analyze, describe and summarize various conditions, situations from various data collected in the form of interviews or observations regarding the problems studied that occur in the field (Winartha, 2006). To be able to properly explain the approach and type of research, presence of researchers, research location, data sources, data collection techniques, data analysis, and checking the validity of findings in a research proposal and/or report requires a good understanding of each of these concepts (Wahidmurni, 2017).

E. Results and Discussion

Purpose of Processing Library Materials

Processing library materials is one of the library's mandatory activities where incoming library materials must be processed first, in order to facilitate access to information and orderly administration by users. In accordance with the background and understanding of processing library materials above, there are several purposes for processing library materials, namely:

To Make Collection Management Easier

Every library material that comes in will be inventoried starting from recording the identity of the book, date of entry, quantity to assigning a unique code, barcode to stamp. All of this makes it easier to organize collections, so that each collection can be placed in the right position. At any time, a user borrows money, the manager just needs to enter the system and record it. Managers can also see the number of books available, those borrowed and those that need to be immediately renewed.

Facilitate service to users

Every library must try to provide the best service to its users. With the processing of library materials, it is hoped that it will be able to improve services to its users. Each book will be classified and arranged systematically on the bookshelves. Each shelf has contents in uniform categories, so it is easier for readers to find the books.

Makes it easier for managers to find books

Not only library users, but managers are also facilitated by good processing of library materials. From time to time, checking, maintaining and re-registering the book you are looking for can be easily found.

Maintaining Book Quality

Of course, not just any book can enter the library, only books that have passed testing and sorting. There are several books that are not included in the collection, such as: books that are defective, damaged, contain dangerous content, violate the law and do not match the user's profile. Not only new books have to be processed, old books are also checked after every borrowing and all books are checked regularly to maintain the quality of the books.

Library Material Processing

Each library has a different library material processing process, depending on the system and technology used. Of course, the more sophisticated it is, the shorter the processing process will be because it is assisted by technology. In general, the process of processing library materials consists of stamping, inventory, classification, cataloging and completeness. Providing ownership and inventory stamps, this aims to ensure that the books legally become the property of the library and cannot be recognized as private property by other people. Library material processing activities are a more detailed explanation of the process above, the following is an explanation:

1. Inventory
   The definition of inventory is the activity of recording books or library materials that enter the library after purchasing books. The purpose of inventory is so that library managers know the number of collections, what books they are, what titles they are and when they were entered. In this inventory activity there are several activities, namely as follows:

   a. Examination of Library Materials
      Every book that comes in must be checked first from a physical perspective, contents and quality. This is done to prevent books that are

defective/damaged and do not match the user's profile. Apart from that, check the correspondence between the number of titles and copies ordered and those received.

b. Collection grouping

Apart from checking one by one, library materials are also grouped into certain fields, which can be differentiated based on titles and branches of knowledge. It doesn't need to be detailed, the most important thing is that it can make the next job easier

c. Tasting

As a sign of official ownership, each book must be stamped, the stamp is a sign that the book belongs to the library. The aim is to make it easier to identify and avoid loss of library material collections at any time. Generally, the ownership stamp is stamped at least 3 times, namely on the title page, on the subtitle page (middle) and on the last page. Apart from the ownership stamp, there is also an inventory stamp placed on each title page. All books that have been stamped must also be recorded or entered into a database on the computer, so that library managers have their own archives related to library material collections. Recording can be done using a computer. The recording of this book consists of at least:

1) Sequence number
2) Recording date
3) Inventory number
4) Origin of library materials
5) Title
6) Author
7) Additional information

2. Classification

The next activity in processing library materials is classification. Classification can be interpreted as grouping, dividing and differentiating. Books that enter the library will be grouped based on subject, content, title or other things according to the classification system used.

3. Data Input

After completing the classification, all books must have their data entered. This data input consists of several things, namely:

a. Collection Cataloging

All book data is entered in the catalog (list of books in the library.

b. Scan the cover

c. Barcoding

The barcode system will make it easier for library managers to collect data. When a user wants to borrow it, the manager just scans the barcode and the book and loan data will automatically appear on the computer screen.

   d. Barcoding test.

4. Labeling and Covering
   Labeling functions to provide a label on the back of the book, this label contains a certain code that has been created previously. This code is often known as the book number/book code obtained in the classification process. Apart from that, labeling also functions to display various library materials as book identities such as book labels and loan return date sheets. Apart from labeling, the book is then given a cover to keep the book in good condition, prevent damage and to make it look neat and clean. Covering can be used using clear plastic, scissors and clear plastic.

5. Shelving (Book Arrangement)
   Once everything is ready, the final step in the book processing activity is arranging the books on the library shelves. The preparation of this library material is based on the numbering that has been done previously, namely the classification number. So that users can easily find the books they are looking for based on these classifications. Readers can also easily find books based on the numbers in the book catalogue. Once completed, the book is then inventoried or recorded along with a unique number (master).
   Books will then also be classified based on size, type and branch of knowledge. This is useful to make it easier for readers to find the book they want. After that, a catalog is created to make it easier for managers to find information on books in the library. Finally, it provides equipment to make it easier for managers to provide book lending services, such as providing numbering labels, barcodes, and even paper returns for books.

Library Material Management at the Palembang Aviation Polytechnic Library Unit.

Library material processing activities begin with the librarian receiving new books and checking whether the number of books matches those ordered. Next, the librarian carries out book classification activities according to the class number of each book. In this stage the librarian or library manager logs in to library.poltekbangplg.ac.id with a library admin account then selects the bibliography and adds it according to the books managed.

Bibliography can generally be interpreted as the activity of describing or listing published literature. Where the bibliography is arranged systematically and formed in the form of a list. Of course, the writing is arranged based on the desired rules. The familiar term bibliography is called a bibliography. Although there are several rules regarding writing techniques, it depends on your wishes. However, in general, a bibliography contains the title, author, edition, printing, city of publisher, name of publisher, year of publication, number of pages, ISBN, and the height of the book.

Next, *enter* book data according to the book classification that has been done previously. After the data is saved, the librarian prints *the barcode* and book label. After stamping the library inventory, the books are covered and the books are ready for *shelving*.

The role of the Kyai as a role model

Risk identification is a process in determining the risks that may occur in an activity. This risk identification is the initial stage in assessing and identifying risks that will occur. This stage is a process that influences the next process. At this risk identification stage, risks were discovered that might occur at the Palembang Aviation Polytechnic Library. At this stage, the interview method is used. From the interviews conducted, it was found that possible risks occurred at the Poltekbang Palembang Library. The results obtained can be seen in the following table

Table 1. Types of Risks and Impacts in Processing Library Materials

Types of Risk	Impact
Cataloging error	Errors in analyzing subjects are something that often occurs in the process of cataloging collections, this is caused by the analysis and study processes having different understandings of the object of study. Classification errors can also occur because the classification officer no longer refers to the chart using a classification number that is unassigned (no longer used), so that the same subject produces a different classification number, this affects the placement of the same book on different shelves.
Data entry error	Errors in the data entry process such as typing errors or incorrect data entry. So, the data stored in the database becomes invalid, and the bibliographic data displayed in Opac becomes inaccurate. In fact, the role of bibliographic data is very important for rediscovering collections on the shelves. This is also useful for ensuring that the information presented is accurate, precise and up to date and is available to readers.
Data *encoding* error	*encoding* errors can occur if the *encoding officer* does not carefully *encode*. When typing an inventory code, even just one code, it can have fatal consequences, especially when borrowing a collection, the collection data will display another book title. Data *encoding* errors can occur if the encoding officer does not carefully *encode*.
Book labeling error	Errors in installing book labels can occur when officers are not careful in installing the labels. This will have an impact on the retrieval of collections that have been placed on the shelves.

Risk Analysis

Based on the results of the interviews conducted, the types of risks were obtained as in the table above. From the table above, it can be seen that:

1. Classification officers must further improve their ability to analyze subjects so that the objects analyzed are more focused and specific.
2. Classification officers must be more careful in referring to relative indexes and *subject headings.*
3. Data entry officers must be careful and make sure they are more thorough when entering data.
4. *encoding* officers must be careful and careful when *encoding* data. Installing book labels must be done carefully to avoid mistakes.

Based on this, there are several ways that can be done to prevent risks that occur during the collection handling process, namely:
1. After analyzing the subject and determining the classification number via relative index or *subject heading* the classification officer must refer back to the chart to ensure that the number in the chart is still in use;
2. The Head of the Library Unit validates the results of subject analysis and bibliographic data that have been entered so as to reduce errors in determining a subject to be analyzed and errors in typing bibliographic data;
3. The Head of the Library Unit carries out *a final check* on the installation of labels and the accuracy of the collection name tags encoded *in* each collection so as to reduce errors and mistakes in placing labels and *encoding* collection data.

Risk Assessment

Based on this risk analysis, the following is the risk assessment obtained:
1. Based on the risk of a lack of subject analysis capabilities, the resulting impact is that the analyzed objects are not focused and specific which can cause inaccurate indexing. This risk has a moderate level of probability. The possible solutions are:
   a. Conduct training and skills development for classification officers in subject analysis.
   b. Implement monitoring and feedback processes between officers to ensure more accurate subject analysis.
2. Based on the risk of inaccuracy in referring to relative indexes and subject headings, the resulting impact is errors in determining classification numbers and inaccurate indexing. This risk has a high level of probability. The possible solutions are:
   a. Emphasize the importance of being careful in referring to *relative indices* and *subject headings* during training.
   b. Implement re-inspection procedures by experienced officers.

3. Based on the risk of errors in data entry, the resulting impact is inaccurate bibliographic data and errors in indexing. This risk has a high level of probability. The possible solutions are:
   a. Implement multiple procedures to ensure accuracy in data entry, such as verification by another officer or use of automation software to detect typing errors.
   b. Provide training that focuses on accuracy and caution in data entry.
4. Based on the risk of errors in installing labels and name tags, the resulting impact is errors in identifying collections and errors in installing labels. This risk has a moderate level of probability. The possible solutions are:
   a. Implement *final check procedures* by the head of the library unit or an experienced officer before the collection is considered complete.
   b. Uses barcode or RFID technology to help ensure label accuracy and collection identification

Risk evaluation activities are carried out continuously with consistency from librarians to implement recommended risk mitigation control activities to a stage that is acceptable to the library (Nurochman, 2016).

F. Conclusion

Based on the results of the research carried out, it was found that risks could occur in the processing of library materials which could affect the performance of educational services in the Palembang Poltekbang Library unit, namely cataloging errors, data entry errors, data encoding errors, and installation of book labels which could have impacts including subject matter. the same results in different classification numbers which affect the placement of the same book on different shelves, collection data does not match the title of the book in question but another book title will appear, data stored in the database becomes invalid, and bibliographic data appears in Opac become inaccurate, as well as difficulties in retrieving collections that have been placed on shelves. Therefore, to be able to overcome and as a preventive measure, it is necessary to carry out risk management based on ISO 31000 in the processing of library materials, and this can also be applied to other library activities. Involving librarians or library managers in risk management training to increase knowledge and competence in managing risks that can arise in library management.

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