

Utilization of Big Data : Analysis of Library Circulation Data Universitas Airlangga

by Dyah Puspitasari Srirahayu

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for Global Sustainability**

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Utilization of big data: Analysis of Library Circulation Data Universitas Airlangga

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Big data is currently being developed to analyze the condition of the organization and also to make predictions about future commissions. Library is one of the organizations that apply technology in every business activity so that the data generated is large and can be utilized for the purpose of improving the performance of the library. One of the data produced in the library is circulation data in the library, such as the one in Airlangga University Library. The circulation data include: visitor data, loan data, return data, member data collection data and read data on the spot. This study aims to look at trends in library use by using circulation data. The research method used is descriptive quantitative by explaining the frequency table that has been processed. The results showed that the activities of borrowing, controlling and reading in hsnys 48.5% while the rest did other activities such as using discussion rooms, the internet and others.

Keyword: Big data, data circulation, trend library, college library

Introduction

Many companies use big data analysis to make business decisions. Riaha (2018) explains that Big Data refers to the evolution and use of technology that provides the right user at the right time with the right information from the mass of data that has grown exponentially for a long time in our society. Big Data Analysis refers to the process of collecting, organizing, analyzing big data sets to find different patterns and other useful information especially focusing on solving new problems or old problems in a better and effective way (Verma & Agrawal. 2016).

Libraries have not maximized the statistical data generated in research for library development, the data generated by the information system in the library is still only for reports without analyzing why and how. Processing statistical data in the library can also be used for appropriate promotional tools in the library to show trends that are happening at the moment. The formulation of the problem in this study is how the condition of the center if viewed from the statistical data of visitors in the library of Universitas Airlangga in 2019.

Literature Review

Higher education libraries are libraries located within the tertiary educational institutions, high schools, academies or other high schools which are essentially an integral part of a tertiary institution. The university library chooses, processes, collects, maintains, and serves its collections

to the citizens of their parent institutions in particular and the academic community in general. One of the activities in the library is circulation.

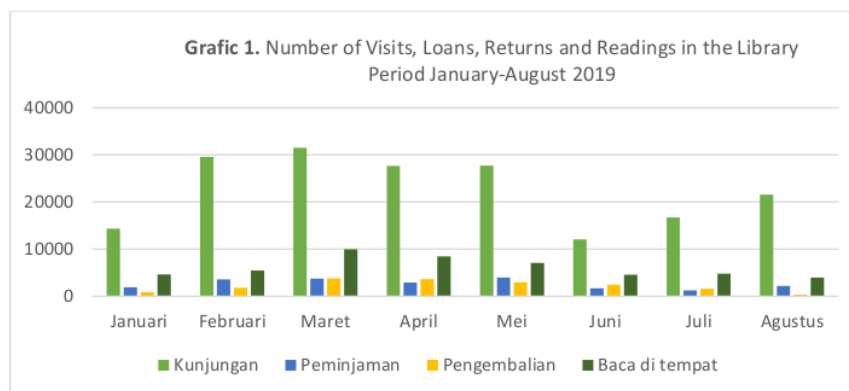
The word circulation comes from the English "circulation" which has a meaning of circulation, circulation. Whereas in library science, the word circulation is often known as borrowing, however the notion of circulation services actually includes all forms of recording activities related to the use of library materials. According to Lasa (1994), "Circulation services are work activities in the form of providing assistance to library users in the process of borrowing and returning library materials". One of the main activities or main services of the library is the borrowing of books and other materials. This lending activity is often known by the name of circulation which means borrowing. Circulation desks are often considered to be the forefront of library services because this section is the first to deal with users or users and is most often used by users, hence the performance of circulation staff can affect the image of the library (Sulistiyo-Basuki 1991).

From some of the descriptions above it can be concluded that circulation services are activities that must be in the library that relate to the lending and returning library materials so that they can be used by the user to the fullest. Circulation service is one of the user services. The main principles of good user service are still used as a guideline as stated in the College Library Guidebook (2004) that the principles of user service are: 1). User oriented, 2). Are universal, 3). Using discipline, and 4). Fast, precise and easy.

Research methods

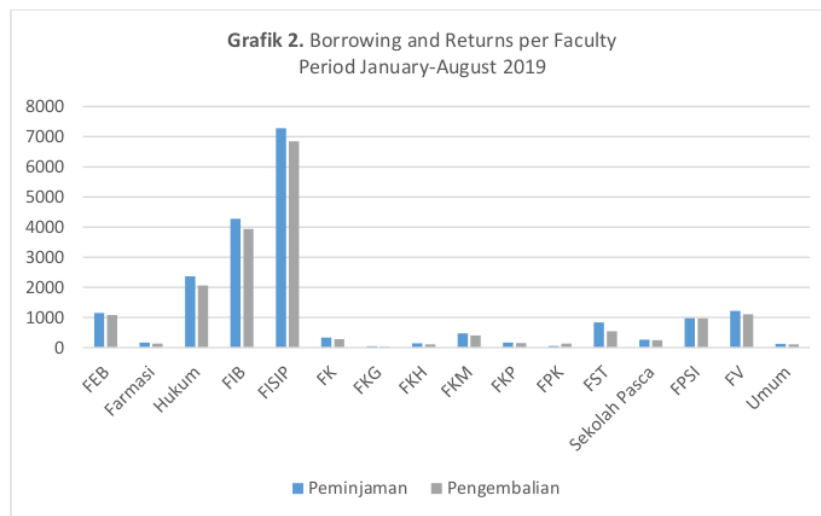
This research is a descriptive qualitative study using secondary data generated by the Airlangga University Library Information System, namely lending, returning, reading on site and visits obtained from February 2019 to August 2019. Data that have been obtained are then processed by using SPSS to get the frequency of data from the number of visits, the number of loans, the number of readings on the spot. The processed data are then analyzed using descriptive methods and conclusions can be drawn. The results showed that

Research result

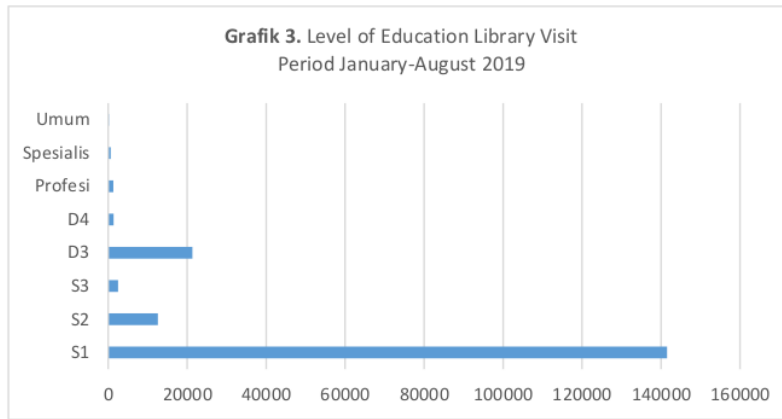


From the chart above shows the number of visits, borrowing, returning and reading collections in the library in the period January-August 2019. For 8 months, Airlangga Library received physical visits as many as 181278 visitors, the most visits occurred in March as many as 31515 visitors. March

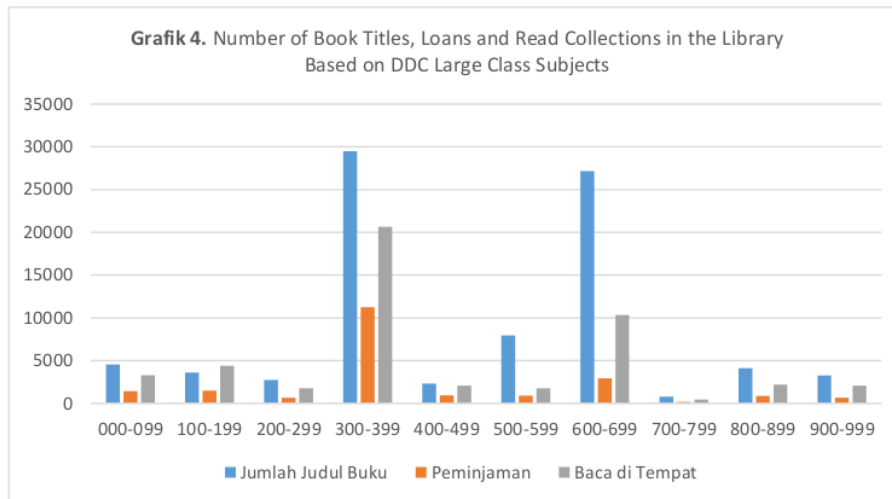
is an even midterm month in which students conduct midterm exams (UTS). The total number of loans for 8 months was 21295 borrowers, and the most occurred in May as many as 3985 borrowers. The total number of returns for 8 months amounted to 17600 returns, and the most occurred in March of 3807 returns. Compared to borrowing and repayment, the total number of library reading activities in the library is 8 months, which is 48958 users, and the most in March is 9969 visitors. In addition, from the chart above, it can be seen that the activities of the library visitors to the Airlangga University are not only about borrowing, returning and reading collections, but there are other activities carried out in the library. This can be seen from the considerable difference between the number of visits with lending, returning and reading collections in the library. The activity of borrowing, controlling and reading in hsnys is 48.5% while the rest are doing other activities such as using discussion rooms, internet and others.



The chart above shows the number of loans and repayments per faculty that occurred in January-August 2019. Of all the faculties at Airlangga University, the most lending and returning collection activities were the Social and Political Sciences Faculty (FISIP) 7278 loans and 6849 collection returns. And the faculties with the least borrowing and returning collection activities are the Faculty of Dentistry (FKG) with 51 loans and 33 collection returns.



The chart above shows the level of user education at the library visit that occurred in January-August. In the University of Airlangga there are 7 levels of education, namely Strata 1, Strata 2, Strata 3, Diploma 3, Diploma 4, Professionals and Specialists. Of all the educational levels in the Airlangga University environment, the most library visits are Strata 1 education with 141562 students, while the least is the public library group with 145 students. This public library group includes alumni or users who are not from the academic community.



The chart above shows the number of book titles, borrowing and reading collections in the January-August period library which is divided into 10 major Dewey Decimal Classification (DDC) classes. Of all the titles of books in the Unair Library, there are at most 300-399 DDC classes, namely 29840 social science subjects. While the least number of books in the class 700-799 with subjects of

arts, entertainment, and sports as many as 780 titles of books. The number of borrowing and reading collections in the library also shows the same thing, the most in class 300-399 is 1251 borrowing and 29630 reading collections in the library. Likewise, the number of borrowing and reading collections in the library at least in the 700-799 class was 177 borrowing and 433 reading collections in the library.

Table 1. Language Of Library Collection

Language	Frekuens	
	Borrow	reading
Indonesia	18375	41676
English	2920	7282
Sum	21295	48958

The table above shows the types of languages in the collection that are borrowed and read in the library. Both borrowing and reading collections in the library show the same results that collections with Indonesian are more borrowed and read by users when compared to collections in English, it can be seen from the large difference table between the two languages. In borrowing a collection of Indonesian books in 18375 copies and a collection of books in English as many as 2920 copies. While in reading activities in the library, books that were read in Indonesian were 41676 copies and books in English were 7282 copies.

Research Analysis

The faculties that visited the most, borrowed collections, read on the place were the faculties of social and political science, while the number two was the faculty of cultural sciences. Research conducted by Puspitasari (2014) in the Airlangga library also shows that the most coming faculties are the Faculty of Social and Political Sciences and the faculty of law, which when viewed from the collection table can be seen as having the most collections, so the library needs to increase the number of collections or can also promote other class books. When viewed from the language, the most numerous collections are in Indonesian. One of the constraints in the use of both printed and non-printed library collections is language (srihahyu, 2018; Anajoyce, 2016).

Conclusion

From the description data it can be seen that the month with the most visits, borrowing, repayment and reading on the spot is February - May and decreases in June and rises again in the following month, from this data the library of Airlangga University can estimate at what time the library is empty. and what month there are many visitors so that library managers can map both staff and activities in the library so as to improve services to users

Research Limitation

This research still has a lot of data that has not been explored using secondary data that is in the centers such as user demographics and others. Besides this data is still physical visit data to

perpsuatkaan, whereas perpsuatkaan at this time many have electronic collections, so it needs further research in this regard.

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