

The Effect of the Ease of Collection Rediscovery Through the Shelving System on Visitor Satisfaction

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Abstract

This study aims to examine the effect of ease of information retrieval through the shelving system on visitor satisfaction at the Library of the Ministry of Primary and Secondary Education. The research employed a quantitative approach, using observation, questionnaires, and documentation as data collection techniques. The sample consisted of 67 active library visitors selected as respondents. The collected data were analyzed using descriptive statistics and simple linear regression with the assistance of IBM SPSS version 27. The findings reveal that the shelving system has been implemented effectively, particularly in supporting the ease of retrieving collections. This is reflected in the systematic arrangement of materials based on the Dewey Decimal Classification (DDC), as well as the use of clear labels and classification codes that help users locate library resources more quickly and accurately. The level of visitor satisfaction is categorized as high, as indicated by the mean score, which demonstrates positive user perceptions regarding the ease of access, speed in finding materials, and efficiency in the information search process. Furthermore, the results of the regression analysis indicate that ease of information retrieval through the shelving system has a positive and significant effect on visitor satisfaction, with a significance value of 0.009 (< 0.05), a t-value of 2.706, and a regression coefficient of 0.349. These results suggest that improvements in the ease of retrieving collections will lead to higher levels of visitor satisfaction. Therefore, optimizing the shelving system is essential in enhancing the overall quality of library services.

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INTRODUCTION

Libraries are information institutions that have a strategic role in supporting the process of education, research, and scientific development. In the development of the current information and digital transformation era, libraries are no longer only seen as a place to store collections, but also as an information service center that is required to be able to provide fast, precise, and efficient access to its users. The quality of library services is one of the important indicators in determining the level of success of a library in meeting the information needs of the community. One of the main aspects that affects the quality of the service is the ease with which users find the collection they need. In an open access service system, users are given the freedom to browse and retrieve collections directly on the shelf, so the effectiveness of the shelving system is a factor that

greatly determines the success of library services. A systematic, consistent, and easy-to-understand collection arrangement will help users obtain information faster and more efficiently. Conversely, a poorly organized shelving system can cause difficulties in the process of retrieving information and degrade the quality of the library user experience.

In the context of library management in Indonesia, shelving is an important part of collection management which aims to maintain the orderliness of the placement of library materials in accordance with the classification system used. According to the National Library Regulation of the Republic of Indonesia Number 7 of 2002, shelving activities must be carried out continuously to ensure that the collection remains in the right location so as to facilitate the process of finding information. Shelving not only

functions as a technical activity in compiling library materials, but also as part of a library service strategy that is oriented to user needs. The basic principles of library science emphasize that information should be easily accessible to users effectively and efficiently. Therefore, the library's ability to provide a clear and easy-to-trace collection placement system is an important factor in increasing library user satisfaction.

The ease of finding collections is closely related to users' perception of the quality of library services. Users will be satisfied if the collection they need can be found quickly, precisely, and without significant obstacles. On the other hand, difficulties in finding collections often lead to a negative perception of library services even when collections are actually available. According to Hidayat (2020), one of the main principles in library services is the ease of access to information for users. When users take a long time to find library materials, the quality of service will be perceived to decrease. In addition, the satisfaction of library users is also influenced by various other aspects, such as the comfort of the space, the clarity of the marking system, the orderliness of the collection arrangement, and the effectiveness of information retrieval tools.

The concept of library user satisfaction basically refers to the degree of compatibility between user expectations and the services received. In the perspective of service quality, satisfaction arises when users feel that the services provided are able to meet their needs and expectations. Research on library user satisfaction continues to grow along with the increasing demand for the quality of information services. The research conducted by Makdis et al. (2024) It shows that library user satisfaction is influenced by psychological and social aspects, such as the quality of facilities, ease of access to collections, interaction with staff, and the comfort of the library environment. The study emphasized that ease of access to information is one of the main factors in shaping users' positive perception of library services. In addition, research on measuring library service satisfaction using the SERVQUAL method also shows that the speed and ease of obtaining information are important indicators in determining the quality of library services (Yefani & Asmara, 2025).

In practice, the process of reuniting collections in libraries still faces various obstacles. Common problems found include incompatibility

with the placement of collections with the classification system, shelf labels that are not informative, the condition of shelves that are too crowded, and the lack of optimal arrangement of library spaces. This condition can slow down the process of searching for information and cause users to have difficulty finding the library materials they need. In addition, the comfort and accessibility aspects of the space also affect the effectiveness of shelving. Bostick and Eigenbrodt (2017) explained that the design of a library space that does not pay attention to comfort and ease of access can be an obstacle for users to make optimal use of library collections. Therefore, good shelving management is not only related to the placement of collections, but also concerns how the library creates a service environment that supports easy access to information for all users.

Similar problems were also found in the Library of the Ministry of Primary and Secondary Education in Central Jakarta. Based on the results of the pre-observation, there are still several obstacles in the process of reuniting the collection, such as the existence of collections that are not placed according to the classification system, a fairly high level of shelf density, and a marking system that is not completely easy for visitors to understand. This condition causes users to take longer to find library materials and often have to ask for help from library staff. In addition, collections that are not in the right place can give rise to the assumption that the library materials are not available. This situation shows that there is a gap between the ideal standards of shelving management and practices in the field that still face various technical and service constraints. This condition has the potential to affect the level of satisfaction of visitors with library services.

Various previous studies have discussed the quality of library services and user satisfaction. Risparyanto's Research (2022) stated that the quality of library services and librarians' activities have a significant influence on the satisfaction of library users in the digital era. Other research conducted by Noprianto (2024) Highlighting the importance of library information systems in increasing user satisfaction through the effectiveness of information services. In addition, the research of Suwanti et al. (2022) It shows that the ease of use of the library information system is one of the important factors in shaping user satisfaction. However, most previous research has focused more on the quality of digital services,

library information systems, or librarian services. Research that specifically examines the effect of the ease of collection retrieval through the shelving system on library visitor satisfaction is still relatively limited, especially in the context of government agency libraries.

Based on the previous research review, there is a research gap that is an important basis for conducting this research. First, previous research has focused more on information technology-based services and has not specifically examined the effectiveness of shelving as a factor that affects library user satisfaction. Second, research on shelving is generally still descriptive and has not been analyzed quantitatively using an inferential statistical approach to determine the magnitude of the influence on visitor satisfaction. Third, research related to the ease of finding collections in government agency libraries, especially within the Ministry of Primary and Secondary Education, is still very limited. In fact, government libraries have different user characteristics and service patterns from university libraries and public libraries.

The novelty in this study lies in the focus of the study which specifically analyzes the effect of the ease of collection retrieval through the shelving system on the satisfaction of library visitors using a quantitative approach. This study not only describes the shelving condition, but also measures its relationship and influence on user satisfaction levels empirically through simple linear regression analysis. In addition, this research was carried out in the context of ministry libraries which are still rarely used as research objects in the field of library and information science. Thus, this research is expected to provide a new perspective on the importance of shelving management as part of a strategy to improve the quality of library services.

This research also has a theoretical and practical contribution to the development of library science. Theoretically, this research can enrich the study of the relationship between the shelving system and library user satisfaction from the perspective of information services. Practically, the results of the research are expected to be evaluation materials for library managers in improving the quality of collection management and information retrieval services. Through more systematic, consistent, and user-oriented shelving management, libraries are expected to be able to create more effective, efficient, and positive

experiences for visitors.

Based on this description, this study aims to analyze the effect of the ease of finding collections through the shelving system on visitor satisfaction at the Library of the Ministry of Elementary and Secondary Education in Central Jakarta. This research is expected to contribute to efforts to develop the quality of library services that are more adaptive to the needs of users and support the creation of optimal information services in the library environment.

METHODS

This study uses a quantitative approach with a survey method to analyze the effect of the ease of collection retrieval through the shelving system on the satisfaction of library visitors. The quantitative approach was chosen because it was able to objectively measure the relationships between variables through statistical analysis (Scott, 2021). The research will be carried out in 2026 at the Library of the Ministry of Primary and Secondary Education in Central Jakarta. The population in this study is all active library visitors who are recorded as using collection services during the research period, with a population of 210 visitors. The sample was determined using the Slovin formula with an error rate of 10%, so that a sample of 67 respondents was obtained. The sampling technique used is purposive sampling, which is a technique of determining samples based on certain criteria (Priadana & Sunarsi, 2021). The respondents' criteria include: (1) active visitors to the library, (2) have conducted independent collection searches on shelves, and (3) are willing to fill out research questionnaires. The research data consisted of primary data obtained through the distribution of questionnaires and secondary data derived from documentation and literature studies. Data collection techniques were carried out through observation, documentation, and questionnaires using a five-level Likert scale to measure respondents' perceptions of the research variables.

The independent variable in this study is the ease of finding collections through the shelving system with indicators including the regularity of the collection arrangement, the clarity of labels and classification codes, the ease of access to the shelves, and the speed of finding collections. Meanwhile, the dependent variables, namely visitor satisfaction with indicators including ease of obtaining information, convenience of services,

efficiency of collection search, and satisfaction with the quality of library services. Before use, the research instrument is first tested for validity and reliability. The validity test was carried out using the Product Moment correlation with the provision of the value of r calculated $> r$ of the table at a significance level of 0.05, while the reliability test used Cronbach's Alpha with the provision of an alpha value of > 0.60 so that the instrument was declared reliable. Data analysis was carried out using descriptive and inferential statistics with the help of IBM SPSS version 27. Inferential analysis uses a simple linear regression test to determine the influence of independent variables on dependent variables. Hypothesis testing was carried out based on a significance value of 0.05, where a Sig. value of < 0.05 showed a significant influence between the ease of finding collections through the shelving system on visitor satisfaction.

DISCUSSION

The results of the study show that the ease of finding collections through the shelving system at the Library of the Ministry of Primary and Secondary Education in Central Jakarta is in the good category. This can be seen from the high assessment of respondents on the regularity of the collection arrangement, the clarity of labels and classification codes, and the ease of access to find library materials independently. The findings indicate that the shelving system implemented has been able to support the effectiveness of library services, especially in helping users obtain information more quickly and efficiently. In the context of modern libraries, ease of access to information is one of the main indicators of service quality because it is directly related to the user experience when utilizing library facilities. Hidayat (2020) explained that one of the main principles of library science is to ensure that information can be found easily and quickly by users. Therefore, the success of shelving is not only judged by the regularity of the collection, but also by its ability to create an effective information search experience for visitors.

The findings of this study show that most respondents feel helped by the collection classification system used by libraries. The use of Dewey Decimal Classification (DDC) and the placement of classification labels on shelves are considered to be able to simplify the process of finding library materials. Theoretically, a clear

classification system serves as an information navigation tool so that users can find collections according to the subject they need without having to always rely on librarians. This condition shows that good shelving management contributes to the creation of a more effective self-service library. This finding is in line with the provisions of library management which affirm that shelving is an important part of maintaining the order of collections so that they remain in the right location and easy to find for users (Alam, 2016).

In addition, the results of the study also show that the indicator of ease of access to shelves obtained a high average value. This indicates that the spatial layout and placement of the collection have supported the mobility of users in searching for library materials. The comfort factor of the space has a considerable influence on the effectiveness of library services because it is related to the ease of users in reaching the collection. Tanuwidjaja et al. (2020) stating that a library space design that pays attention to accessibility will help create a more inclusive and efficient service experience. Thus, shelving management is not only related to the arrangement of books on the shelf, but also includes aspects of space ergonomics, user comfort, and ease of information navigation in the library environment.

However, the results of the research observation show that there are still several obstacles in the implementation of shelving. Some collections were found not to be in the correct classification order, especially during high visiting hours when the intensity of collection use increased. This condition causes users to take longer to find the desired library material. In addition, the level of shelf density in certain collection categories is also an obstacle in the process of finding information. These problems show that the success of shelving is not only determined by the classification system, but also influenced by the consistency of collection management and the intensity of shelf maintenance by library staff. Mismatches in the placement of collections can lead to miscommunication of information and create the perception that library materials are not available even though they are actually still in the library.

The findings show that shelving management requires regular supervision and evaluation. In practice, a good shelving system must be accompanied by shelf reading activities or regular checks of the position of collections on the

shelves to ensure conformity with the classification system. If the supervision process is not carried out consistently, the possibility of mishelving will be even greater. This can affect the effectiveness of the service and lower the level of visitor satisfaction. Therefore, the quality of shelving is not only determined by the design of the system, but also by the discipline of library managers in maintaining the order of collections in a sustainable manner.

The results of this study also show that the ease of rediscovering collections through the shelving system has a positive and significant influence on visitor satisfaction. Based on the results of the simple linear regression test, a significance value of 0.009 or less than 0.05 was obtained with a calculated t value of 2.706 and a regression coefficient of 0.349. These results show that any improvement in the quality of the ease of finding collections will be followed by an increase in library visitor satisfaction. Thus, the research hypothesis that states that there is a significant influence between the ease of collection rediscovery on visitor satisfaction is acceptable.

Statistically, a regression coefficient of 0.349 shows that the variable of ease of collection retrieval has a positive contribution to the formation of visitor satisfaction. In addition, based on the results of the analysis of the determination coefficient (R Square), the contribution of independent variables to dependent variables was obtained of 34.9%. This value shows that the ease of finding collections through the shelving system has a strong enough influence on visitor satisfaction, while the rest is influenced by other factors outside of the study. These factors can be in the form of the quality of librarian services, the comfort of library facilities, the completeness of the collection, library information technology, and the atmosphere of the reading room. Thus, visitor satisfaction is a multidimensional variable that is not only influenced by one aspect of the service.

The results of this study are in line with research on library user satisfaction which shows that ease of access to information is an important factor in shaping users' positive perception of the quality of library services (Yefani & Asmara, 2025). Research on measuring user satisfaction using the SERVQUAL method shows that the dimensions of service reliability, ease of obtaining information, and efficiency of collection access are closely related to the level of library user satisfaction. The research emphasizes that users

will feel satisfied if library services are able to provide access to information that is fast, accurate, and easy to understand.

In addition, the research of Makdis et al. (2024) Regarding the integrative model of library user satisfaction, it is explained that user satisfaction is influenced by psychological and social aspects, such as environmental comfort, ease of access to collections, quality of facilities, and interaction experience while using library services. The findings reinforce the results of this study that the ease of retrieval of collections is an important part of the library user experience. When users can find collections easily, then they will have a positive perception of the quality of services provided by the library.

This research is also relevant to research on service quality and library user satisfaction which shows that the dimension of service reliability has a significant effect on user satisfaction (Rifandi et al., 2024). In the context of this study, the ease of finding collections can be categorized as a form of library service reliability because it is related to the library's ability to provide consistent and efficient access to information. When users feel that collections can be found quickly and precisely, the level of trust in the quality of library services increases. On the other hand, difficulty in finding collections can lead to dissatisfaction even though other library facilities are adequate.

The results of this study also support the concept of LibQUAL+TM which states that the quality of library services is influenced by aspects of information management and access to information sources (Amalia & Christiani, 2020). In this approach, user satisfaction is not only determined by the availability of collections, but also by how the library is able to facilitate users in obtaining information effectively. Therefore, the shelving system has a strategic position in supporting the quality of library services because it is directly related to the process of finding information.

In addition to being compared with previous research, the results of this study can also be explained theoretically through the perspective of information user behavior. In information behavior theory, users tend to want a fast, simple, and minimal information search process. When the library system is able to provide clear collection navigation, the burden of searching for user information will be reduced. Conversely, an inconsistent shelving system will increase the

cognitive load of users as they have to spend more time and energy searching for collections. This condition ultimately affects the perception of the overall quality of library services.

From a practical perspective, the results of this study provide important implications for library managers. First, libraries need to improve the consistency of collection placement according to the classification system to minimize the occurrence of misshelving. Second, library managers need to update the shelf marking system to make it more informative and easy to understand by users. Third, the arrangement of shelf space needs to be adjusted to the level of collection density so that users can move comfortably when searching for library materials. Fourth, libraries need to conduct regular evaluations of the effectiveness of shelving through observation and user feedback. These efforts are important so that the quality of library services can continue to improve according to user needs.

The theoretical implication of this study is to strengthen the study of library science regarding the relationship between the shelving system and user satisfaction. So far, research on library user satisfaction has focused more on the quality of librarian services, information technology, and library facilities. This study shows that the technical aspects of collection management such as shelving also have a significant influence on the library user experience. Thus, this research can be the basis for the development of further studies on collection management and information user behavior in the context of modern library services.

In addition to the shelving factor, this study also shows that there are other factors that have the potential to affect the satisfaction of library visitors. One of these factors is the quality of librarians' services. Users tend to feel more satisfied when they get responsive and communicative help from library staff. Another factor is the completeness and up-to-date of the collection. Users will be more satisfied if the library collection matches their information needs. Research on the availability of printed collections shows that the completeness and relevance of collections have a positive relationship with library user satisfaction (Sabila & Suhardini, 2013).

In addition, the development of information technology is also an important factor in shaping library user satisfaction. Currently, many libraries

have leveraged the Online Public Access Catalog (OPAC) to help users browse their collections digitally. Research on user satisfaction of the OPAC application shows that the ease of use of the library information system has an influence on the level of user satisfaction (Afiah et al., 2024). Thus, the integration between physical shelving and digital information systems is an important step in improving the effectiveness of library services in the modern era.

In the context of government libraries, the results of this research have quite important relevance because government agency libraries have diverse user characteristics, ranging from employees, students, researchers, to the general public. Therefore, shelving management must be designed adaptively to be able to meet the needs of various user groups. Imoptimal collection management can lead to low effectiveness of information services and decrease the interest of library users' visits.

Overall, the results of this study show that the ease of finding collections through the shelving system has a significant influence on the satisfaction of library visitors. A well-organized shelving system is able to create information services that are more effective, efficient, and oriented to user needs. Nevertheless, the library still needs to make various improvement efforts, such as improving the consistency of collection placement, clarifying the shelf marking system, expanding collection access spaces, and integrating shelving services with library information technology. Through optimal shelving management, libraries are expected to improve service quality and create a more positive user experience in the process of retrieving information.

CONCLUSION

Based on the results of the research, it can be concluded that the ease of finding collections through the shelving system has a positive and significant effect on visitor satisfaction at the Library of the Ministry of Elementary and Secondary Education in Central Jakarta. A systemically arranged shelving system, supported by the use of Dewey Decimal Classification (DDC), clear shelf labels, and easy access to collections has proven to be able to help users find library materials faster and more efficiently. The results of the regression analysis showed that the variable of ease of collection retrieval contributed

34.9% to visitor satisfaction, while the rest was influenced by other factors such as the quality of librarian services, the comfort of facilities, the completeness of collections, and the use of library information technology. These findings show that shelving not only serves as a technical activity of collection management, but also becomes an important part of building a quality of library services that is oriented towards user experience. The main contribution of this research lies in strengthening empirical studies on the influence of the shelving system on visitor satisfaction which has rarely been studied quantitatively, especially in the context of government agency libraries.

This research has limitations in the scope of research that is only carried out in one library so that the results cannot be generalized widely to all types of libraries. In addition, the study only focused on one independent variable so it was not able to describe all the factors that affect visitor satisfaction. Therefore, further research is recommended to develop a research model by adding other variables, such as the quality of librarian services, the use of OPAC, the comfort of reading rooms, and the quality of library facilities. Practically, library managers are advised to conduct periodic shelf readings, improve collection marking systems, reduce shelf density, and integrate shelving services with digital information systems so that the process of finding information becomes more effective and efficient.

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