DIGITIZATION OF ENDANGERED LAMPUNG REGIONAL LANGUAGE MANUSCRIPTS AND DICTIONARIES: THE LIBRARIAN'S ROLE AS LINGUISTIC DOCUMENTER

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Abstract

The Lampung language is one of Indonesia's local languages that is now endangered, caused by a decline in the number of active speakers and a loss of continuity in language use across generations. In addition, ancient manuscripts written in Lampung script and various local dictionaries that preserve vocabulary also face the threat of physical damage and data loss. This article aims to examine how the digitalization of ancient manuscripts and Lampung language dictionaries has been carried out, as well as how the role of librarians can be expanded into that of linguistic documenters in these efforts. The study was conducted through a descriptive qualitative literature review, examining journal articles, proceedings, institutional reports, and credible news coverage regarding ancient Lampung manuscripts, Lampung language dictionaries, and the documentation of endangered languages both in Indonesia and abroad. The results of the study show that the digitalization of ancient Lampung manuscripts has been carried out through predigitalization, digitalization, and postdigitalization stages with support from the National Library. Meanwhile, Lampung language dictionaries have been developed in various digital formats, but most still focus on application features without meeting proper language documentation standards. Librarians have the opportunity to expand their role from mere media transfer to that of linguistic documenters who collaborate with linguists, apply linguistic metadata standards, and involve speaker communities. This role is important for the sustainability of regional language revitalization because it bridges information preservation work in library science with the principles of language documentation in linguistics.
Keywords: *Manuscript Digitization; Lampung Language; Language Documentation; Librarian*

INTRODUCTION

Indonesia has hundreds of regional languages spread across various regions, but some of these languages cannot survive the pressures of modernization and language shift. The Lampung language, which is spoken by the indigenous people of Lampung with the Lampung script that has developed since the 17th century, is in danger of extinction because its use is increasingly limited to the older generation, while the younger generation uses Indonesian more in their daily lives (Detikcom, 2024, 2025). According to data from the Language Agency of the Ministry of Education and Culture in 2022, there are 139 regional languages in Indonesia that are endangered, including Lampung (Detikcom, 2024). In addition to threats to the spoken language, ancient Lampung script manuscripts found in various regions, including those written on halim bark, buffalo horns, bamboo blades, and European paper, also face the threat of physical damage due to age, natural factors, and lack of care (Kanafi, 2025). This condition places

ancient manuscripts and Lampung dictionaries as two forms of documentary heritage that both need immediate rescue through digitization.

A lot of research has been done on the digitization of ancient manuscripts in libraries and museums in Indonesia. The results consistently show that the use of digital media effectively extends the information life of manuscripts while increasing their accessibility (Almis & Wijayanti, 2023; Khadjah et al., 2021; Prastiani & Subekti, 2019). The study typically emphasizes the technical steps of digitization such as scanning, verification, and storage, but has not yet linked these activities to the language documentation framework in linguistics (Hidayah & Faila Saufa, 2019; Makmur et al., 2024; Nugraha & Laugu, 2021). In contrast, research on Lampung digital dictionaries usually comes from the field of software engineering and focuses on the development of web- or Android-based translation applications or dictionaries, with an emphasis on technical features rather than linguistic documentation standards (Febriansyah et al., 2020; Plaza R., 2023). Meanwhile, in linguistic studies, language documentation shows how important it is to have multipurpose, continuous records that include lexicons, corpuses, and grammars, rather than just dictionaries (Himmelmann, 2006), while the Language Development and Development Agency noted that documentation of endangered regional languages in Indonesia, including the Lampung language, is still dominated by dictionaries and the lack of corpus and annotated records (Badan Pengembangan dan Pembinaan Bahasa, 2022). This shows that the digitization of Lampung language manuscripts and dictionaries in libraries has not been fully connected to the principles of language documentation developed in documentary linguistics. As a result, the role of librarians is still understood in a limited way as the implementer of media transfer in the process.

This article offers a new perspective by looking at librarians not only as technical implementers of digitization, but also as linguistic documentators who help save endangered Lampung language manuscripts and dictionaries. The purpose of writing this article is to examine the practice of digitizing ancient manuscripts and dictionaries of the Lampung language that has taken place and formulate how the role of librarians can be expanded by applying the principles of linguistic documentation. It is hoped that this article will make a conceptual contribution to the development of the professional role of

librarians in supporting the revitalization of regional languages, especially Lampung languages, by combining library science literature and documentary linguistics.

LITERATURE REVIEW

Ancient manuscripts can be considered as handwritten documents that are old and have historical, philological, and documentary value for the civilization of a community, including Lampung script manuscripts that contain customary records, village administration, and ceremonial procedures of the Lampung community (Kanafi, 2025). Digitization or media transfer is the process of converting the physical form of a manuscript into a digital format for the preservation of information and expanding access (Almis & Wijayanti, 2023). In linguistics, this concept is closely related to language documentation, which is the activity of compiling language records that are multipurpose and continuous and include various aspects of language, such as grammar, lexicon, and the corpus of natural conversation (Himmelmann, 2006). Various Lampung dictionaries, both printed and digital, show that dictionaries are one of the most commonly created language documentation products, containing vocabulary equivalents between regional languages and national languages or foreign languages (Balai Bahasa Provinsi Lampung, 2024, 2025).

The level of vulnerability of a language can be assessed through a framework of language vitality that considers intergenerational transmission patterns, the number and proportion of speakers, and the realm of language use in daily life (UNESCO, 2003). Thus, a language that is only spoken by parents and not passed on to children is considered very endangered, and this is the current condition of the Lampung language (Badan Pengembangan dan Pembinaan Bahasa, 2022; Detikcom, 2024). In the context of library science, information preservation is defined as an overall effort to ensure that library materials, including ancient manuscripts, remain accessible and utilized throughout the ages, with digitization as one of its key strategies (Sukaesih et al., 2016; Widiastuti & Krismayani, 2021). In this framework, librarians function as information managers and are responsible for maintaining access to collections, including protecting them from damage and loss (Ilo et al., 2020).

International experience shows that collaboration between libraries and language documentation centers can help preserve endangered languages. This is seen in the development of SiDHELA's digital language archive in India, where libraries are responsible for providing institutional repository infrastructure and metadata standards, while language documentation centers provide the linguistic expertise necessary for data transcription and annotation (Narayanan & Takhellambam, 2021). This collaborative model shows that librarians' duties can change from just storing physical documents to being involved in the language documentation process. From this research, a conceptual proposition can be formulated that the role of librarians in saving endangered Lampung language manuscripts and dictionaries can be expanded to linguistic documentaries rather than just taking over the media technically. Using the principles of language documentation, librarians can apply linguistic metadata standards, and build collaborations with linguists and the speaking community.

RESEARCH METHOD

This study uses a descriptive qualitative approach with a literature study method (Library Research) (Adlini et al., 2022; Zed, 2008) to conceptually analyze the practice of digitizing Lampung language manuscripts and dictionaries and the role of librarians in the process. The sources of information for this study come from scientific journal articles, conference proceedings, official reports from government and linguistic institutions, dictionary publications, and news in the media online credible about Lampung's ancient manuscripts, Lampung language dictionaries, documentation of endangered languages, and the role of librarians in preserving information, both in Indonesian and international contexts. The source publication period used is dominated by publications of the last ten years to ensure relevance to the development of digitization practices and the latest language policies.

Source tracing is carried out through online academic databases, such as Google Scholar, ResearchGate, and repositories of university institutions and linguistic institutions, using keywords such as digitization of ancient manuscripts, Lampung language dictionaries, endangered regional languages, language documentation, and the role of librarians. The sources obtained were selected based on the criteria of the relevance

of the theme, the credibility of the publisher, and the suitability of the publication time range (Booth et al., 2016; Taherdoost, 2023). Furthermore, the collected data was read critically-comparatively to find patterns, similarities, and differences in results from various sources, especially related to the stages of digitization of manuscripts, forms of digital dictionary development, and language documentation concepts.

The data analysis process is carried out in three stages. First, the data is sorted according to the research topic. Then, the results were compiled based on the theme of ancient manuscripts, language dictionaries, and the role of librarians. Finally, the results were combined to create a conceptual framework for the role of librarians as linguistic documentators. The credibility of the study is maintained through triangulation of sources (Sugiyono, 2020), which is to compare findings from library science journals, official language reports, and media reports to ensure the consistency of information regarding the condition of Lampung's language and manuscripts.

RESULTS AND DISCUSSION

Language Conditions and the Threat of Extinction of the Lampung Language

The Lampung language is currently facing significant pressure due to the language shift. According to sociolinguistic research conducted first in 1984 and repeated in 1994, the language could become extinct in about 36 years if the declining trend of speakers continues. This is because language transmission from the older generation to the younger generation is increasingly rare, including in the family environment (Detikcom, 2024). This condition is in line with the category of languages that are very threatened in the framework of language vitality, namely languages that are only used by the older generation without being passed on to children (UNESCO, 2003). According to national linguistic data, Lampung's grammatical documentation is still minimal compared to other major regional languages. According to this data, of the hundreds of regional grammar publications made since the mid-1970s, the Lampung language accounts for only nine publications, far below the number of Javanese, Sundanese, and Balinese grammar publications (Badan Pengembangan dan Pembinaan Bahasa, 2022). This situation shows that the documentation and digitization of ancient manuscripts and

dictionaries of the Lampung language is essential to reduce the damage before the language completely loses its speakers.

Digitization of Lampung Ancient Manuscripts as an Information Preservation Practice

The Lampung Provincial Government, through the Library and Archives Service, has carried out digitization of ancient manuscripts with the Lampung script stored in the Lampung Museum and spread across various regions. By 2025, about 100 ancient manuscripts from six districts and cities of Lampung have been collected, and 36 of them have been digitized. These manuscripts were written or carved on various media from centuries ago, such as halim bark, buffalo horns, bamboo blades, and European paper. This shows the diversity of the writing traditions of the Lampung people (Kanafi, 2025). The digitization process is carefully carried out by officers using gloves to avoid oxidation, lasts approximately 30–40 minutes per manuscript, and the file is produced in PDF/A format that meets international standards for long-term electronic document archiving (Kanafi, 2025). This activity also received support from the National Library in 2024 by providing media transfer tools and technical guidance for the preservation of ancient manuscripts (Kanafi, 2025).

The practice of digitizing ancient manuscripts in Lampung follows the same pattern as that used by libraries and museums throughout Indonesia. According to a systematic study of the literature on the digitization of ancient manuscripts, media transfer has always been used as the main strategy for the preservation of manuscript information in the library environment (Almis & Wijayanti, 2023). A similar pattern was also found in the digitization of ancient manuscripts at the Bandar Cimanuk Museum, Indramayu, which implemented stages of searching, selection, and media transfer to keep the manuscript accessible (Khadjah et al., 2021), at the Radya Pustaka Museum Surakarta, which uses flipbook digital to disseminate digital products (Prastiani & Subekti, 2019), and on a website developed for the preservation of ancient Sasak manuscripts in Lombok (Anwar et al., 2018). The experience of the Aceh Manuscript Rumoh Library also shows a consistent work pattern. In this case, there are 3 stages in the digitization process, namely the pre-digitization stage: the manuscript is searched, selected, and cataloged; digitization, data is captured, verified, and converted into a format; and post-digitization,

data is stored and distributed, both in a Offline or online (Rahmi, 2025). The similarity of this pattern shows that the digitization of ancient Lampung manuscripts is part of methodologically established information preservation practices in the Indonesian librarianship. However, there are still many institutions that face problems such as limited resources and lack of consistent digitalization standards (Makmur et al., 2024).

Digitization of Dictionary as a Form of Documentation of the Lampung Language Lexicon

In addition to ancient manuscripts, the vocabulary of the Lampung language is also documented through various dictionaries, both printed and digital. The Lampung Provincial Language Center has published the Lampung-Indonesian Cultural Dictionary Dialect O. This dictionary contains basic vocabulary about the culture, customs, and traditions of the people of Lampung (Balai Bahasa Provinsi Lampung, 2024), as well as the Lampung Illustrated Dictionary of the A-Indonesian Dialect as an effort to introduce the vocabulary of the Lampung language to the younger generation through visual illustrations (Balai Bahasa Provinsi Lampung, 2025). Software engineering researchers have developed many Lampung language digital dictionaries in the field of application development. One of them is the Cawa Lampung application, which is based on Android and uses extreme programming methods and algorithms Vote Nazief-Adriani to translate Indonesian into Lampung dialect A (Febriansyah et al., 2020), as well as a web-based digital dictionary of Lampung script designed to help students learn the Lampung language and script in secondary school (Plaza R., 2023).

Although various digital dictionaries help preserve the vocabulary of the Lampung language, most are created with the app's features such as translation speed or ease of user interface in mind and less consider the principles of thorough language documentation such as phonological annotation, consistent dialectal information, or standardization of linguistic metadata (Himmelmann, 2006). This condition is in line with the record of the Language Development and Development Agency that documentation of endangered regional languages in Indonesia, including the Lampung language, is still limited to dictionaries and has not been widely equipped with a corpus of primary data and annotated speech recordings. In fact, the corpus is supposed to be the main component of language documentation because it contains primary data that has not been altered like

a dictionary (Badan Pengembangan dan Pembinaan Bahasa, 2022). Therefore, the current Lampung language digital dictionary can be considered a good starting point for language documentation. However, it still needs reinforcement to meet language documentation standards in documentary linguistics.

The Role of Librarians as Linguistic Documentators

Findings regarding the digitization of ancient manuscripts and dictionaries of the Lampung language show that librarians have done more technical work on media transfer, such as scanning, verification, and storing digital files (Kanafi, 2025; Rahmi, 2025). This role is in line with the traditional function of librarians in information preservation, which is to ensure that information can be accessed through various means, such as digitization and institutional knowledge management (Sukaesih et al., 2016; Widiastuti & Krismayani, 2021). However, given that Lampung language manuscripts and dictionaries have a lot of linguistic content, the role of librarians can ideally be expanded to linguistic documentators who contribute to compiling language recordings in a sustainable and multipurpose manner, in accordance with the principles of language documentation (Himmelmann, 2006).

The expansion of this role can be seen from the collaborative experience between libraries and language documentation centers in different countries, such as in the development of SiDHELA's digital language archive in India, where librarians provide institutional repository infrastructure and metadata standards, while linguists assist in the transcription and annotation aspects of linguistic data (Narayanan & Takhellambam, 2021). In Lampung Province, this kind of collaboration can be realized through a partnership between the Lampung Provincial Library and Archives Office, the Lampung Provincial Language Center, and academic institutions. In this case, librarians are responsible for managing the linguistic metadata standards for each digitized manuscript and dictionary entry, ensuring that each digital file is equipped with dialect information, narrative context, and data sources, and building a publicly accessible digital repository.

The expansion of the role of librarians to linguistic documentators also requires preparedness for the risk of loss of collections and digital data, as emphasized in the study on disaster preparedness for the preservation of library collections (Ilo et al., 2020), and requires strengthening the interdisciplinary competence of librarians to be able to

understand the basics of documentary linguistics, not just digital archiving techniques. Other challenges that need to be considered include the limitations of digital infrastructure in a number of manuscript storage institutions and the lack of uniform standards for digitization between institutions (Makmur et al., 2024), as well as the need for the active involvement of the Lampung language speaking community so that the documentation process is not only technically oriented but also maintains the sovereignty of the cultural data of the language owning communities. By integrating the principles of information preservation and language documentation, librarians have the potential to become key actors who bridge efforts to save Lampung language manuscripts and dictionaries with the agenda of revitalizing endangered regional languages more broadly.

CONCLUSIONS

This study shows that the digitization of ancient manuscripts and dictionaries of the Lampung language has been carried out through various initiatives. Some examples include the collaboration between the Lampung Provincial Library and Archives Office and the National Library, the development of various digital dictionaries by the Lampung Provincial Language Center and researchers in the field of information technology. Nonetheless, most of the practice is still technically focused and has not been fully connected to the principles of language documentation in documentary linguistics. This article emphasizes that the role of librarians can and should be improved from mere implementers of media transfer to linguistic documentarians who collaborate with linguists, implement linguistic metadata standards, and involve the speaking community in the process of digitizing manuscripts and dictionaries. One of the unique contributions of this article is the establishment of a conceptual framework that combines the principles of language documentation in linguistics and information conservation in library science. This conceptual framework serves as a foundation for the broader role of librarians in the context of endangered regional languages. This study does not involve primary field data from librarians and the Lampung-speaking community because it is conceptual and based on literature studies. Further studies are suggested to investigate the practices of real librarians at the Lampung Provincial Library and Archives Service and the Lampung

Provincial Language Center, including an evaluation of metadata standards and the quality of language documentation in digital dictionaries that have been developed.

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