

FINE SYSTEM OF *RINGGIT* IN *SIMBUR CAHAYA* MANUSCRIPT: ANALYSIS USING ARTIFICIAL INTELLIGENCE

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Naskah diterima: 1 Desember 2024 - Revisi terakhir: 12 Maret 2025

Disetujui terbit: 19 Maret 2025 - Terbit: 10 Juni 2025

Abstract

Simbur Cahaya manuscript is a customary law originating from the government of Palembang Lamo, precisely in the 17th century, and was applied in the interior regions of Palembang. During the Dutch colonial period, the Dutch Assistant Resident Van den Bossche successfully completed the codification of the *Simbur Cahaya* law in 1854. This law was subsequently revised multiple times, including in the years 1862, 1873, 1875, 1876, 1890, 1894, 1897, 1913, 1922, 1927, and 1939. An analysis using artificial intelligence (AI) has revealed a unique feature of this manuscript: all legal violations in society were sanctioned with fines in the form of ringgit. This paper aims to explore how ringgit was used as a fine to punish members of society who violated the rules. The focus of this study is to trace how ringgit was applied as a sanction for legal offenders. The research employs historical research methods, including heuristics, source criticism, interpretation, and historiography, with the primary source being the *Simbur Cahaya* manuscript codified by the Dutch in 1922 and 1927. The novelty of this study lies in the use of artificial intelligence to interpret the *Simbur Cahaya* manuscript as the primary source of research. Based on the analysis, it was found that all social punishments recorded in the *Simbur Cahaya* manuscript for individuals who violated the rules were always accompanied by fines in the form of ringgit, ranging from a minimum of half a ringgit to a maximum of six ringgit.

Keywords: Ringgit; Fine System; *Simbur Cahaya* Manuscript; Artificial Intelligence

INTRODUCTION

The people of South Sumatra were originally indigenous communities known as "marga." Marga refers to a social unit that has its own laws, leaders, and environment (Istianda, Irwanto, and Giyanto 2023). All members of the marga have the same rights and responsibilities, with a communal life based on mutual cooperation to maintain order (Geertz 2019). The *marga* legal system can be unified, hierarchical, or interconnected, depending on the factors that shape its structure (Adriansyah 2023). The legal system practiced by indigenous communities was adopted by the Palembang government in the 16th century, thanks to the diligent efforts of Ratu Sinuhun, the wife of Palembang's ruler. She compiled the laws governing marga-based societies and merged them with Islamic law, creating a legal manuscript known as the *Simbur Cahaya*. This manuscript embodies the genealogical-territorial legal system of clan communities in South Sumatra (Adil

2014).

The codification of laws governing marga-based societies by the Palembang rulers is evident in the recognition and incorporation of customary *marga* law in Uluang Palembang into formal 'legislative law.' This primarily aimed to govern the territorial region of Uluang Palembang as part of the domain under the authority of the Palembang rulers (Rusdiana 2019). This reality shows that the rulers of Palembang possessed a deep understanding of legal knowledge, where the transformation from 'customary law' to 'legislative law' reflects the evolution of legal thought that the Palembang rulers had carefully studied (D. J. Putri et al. 2024).

The Palembang ruler enacted the *Simbur Cahaya* Law to accommodate and strengthen the customary law within the marga-based communities. By incorporating customary law into the formal legal system, the Palembang government granted formal recognition of the norms within local or marga communities (Amaliatulwalidain and Fadlurrahman 2021). Furthermore, the rulers of Palembang, as an Islamic entity, aimed to ensure that the laws applied were in accordance with Islamic teachings. *Simbur Cahaya* functions as a law that integrates Islamic values into the existing legal framework, thereby enabling society to live by religious norms and customs. The existence of laws is hoped to improve order and justice in society. Written and systematic laws will make enforcing the law easier and resolve community member disputes (Zami, Ritonga, and Gunawan 2023). Through the enactment of the *Simbur Cahaya* Law, the Palembang Kingdom reinforced its status as a legitimate and authoritative center of power. This law granted the rulers legitimacy to exercise their authority and uphold the rule of law within their territory. The *Simbur Cahaya* Law can be regarded as a response to societal changes and a means to preserve harmony and stability within the community. Thus, the establishment of the *Simbur Cahaya* Law was a strategic step by the Palembang rulers to integrate customary law with Islamic values while simultaneously fostering stability and legitimacy within the community (Farida and Setiawan 2024).

The *Simbur Cahaya* manuscript holds significant importance for the current generation, as it is part of the Malay Palembang community's rich cultural and historical heritage. Understanding this manuscript helps the current generation recognize and appreciate their cultural roots and the values passed down by their ancestors. This manuscript can inspire the younger generation to understand the importance of local

wisdom in modern life. Many values and principles in customary law are still relevant and can be applied in the context of today's life. Therefore, understanding the heritage of *Simbur Cahaya* fosters identity and pride in the younger generation while also shaping character and nurturing a love for the country and local culture. Analysis of this manuscript can provide in-depth insight into the social, political, and cultural dynamics of the past, especially the use of fines, in this case, *ringgit*, as a common form of punishment in the *Simbur Cahaya* manuscript.

In a historical context, *Ringgit* refers to a form of currency used by the people of Palembang during the era of the Palembang Darussalam Sultanate. This currency is believed to have held a specific value that was utilized for economic transactions as well as a means of paying fines within the customary legal system. The use of currency as a form of penalty indicates that the people of Palembang had a relatively advanced economic system, where sanctions were not only in the form of physical or social punishment but also economic compensation that offenders were required to pay. As a means of payment in the fine system, *Ringgit* served as a substitute for harsher punishments, such as physical penalties or exile. In the *Simbur Cahaya* manuscript, fines in the form of *Ringgit* were often imposed for violations related to social norms and behaviors deemed harmful to the community, such as breaches of customary law, minor criminal offenses, and violations of moral values.

The *Simbur Cahaya* manuscript is a comprehensive legal code that integrates Islamic law and customary law (Wulandari and Marzuki 2020). It governs various aspects of society, including marriage and sanctions, the role of customary officials, regulations and penalties, agriculture, theft, and more (M. Setiawan 2022; Ilham and Zami 2022). Furthermore, *Simbur Cahaya* promotes gender equality based on Islamic principles (Annisa, Idris, and Sholeh 2021). Unlike traditional Islamic law, it imposes fines as penalties for all criminal and pornography-related offenses, which align with the societal values of South Sumatra (M. Setiawan 2022). *Simbur Cahaya* was widely enforced throughout South Sumatra, except in the Besemah region, which had its own legal system (Ilham and Zami 2022). Therefore, further research on the fine system implemented in *Simbur Cahaya*, particularly the use of *Ringgit*, is highly relevant.

So far, research on the *Simbur Cahaya* legal text has primarily relied on manual and conventional philological approaches (Annisa, Idris, and Sholeh 2021). However,

these traditional methods have limitations in processing large datasets and interpreting archaic language. To overcome these challenges, the adoption of digital technology and a multidisciplinary approach is crucial. Putranto (2022) emphasizes the importance of digitizing historical legal texts to improve regulatory efficiency. Akhyar (2024) suggests utilizing knowledge graphs and graph mining techniques to represent and analyze Indonesia's legal system. Similarly, Sumiwi (2023) advocates for computational methods to examine spelling variations in manuscripts.

As widely acknowledged, ancient manuscripts face various threats, including environmental factors, light exposure, chemical reactions, and biological agents (Fitriyanti 2023). Many experts have undertaken the digitization of historical manuscripts, recognizing its crucial role in preservation and accessibility enhancement (R. M. Putri and Riza 2024; Anwar, Husain, and Jaya 2018). The digitization of ancient manuscripts is a fundamental method for safeguarding cultural heritage and valuable information (Anwar, Husain, and Jaya 2018; R. M. Putri and Riza 2024). This process involves basic conservation, scanning, and the application of technologies such as Optical Character Recognition (OCR) to convert physical texts into digital formats (Yasin 2016; Sirajuddin, Hakim, and Johari 2022). Efforts in digitization and conservation are essential to preserving cultural heritage and local wisdom (Taufiqurrahman and Hidayat 2022). Beyond protecting manuscripts from physical deterioration, digitization also enhances accessibility and public engagement (R. M. Putri and Riza 2024). The integration of AI and digital technology in manuscript analysis and preservation offers solutions to these challenges, ensuring the longevity of cultural heritage for future generations (Yasin 2016; Aceng, Mamun, and Fauzi 2024). To ensure quality and consistency, the digitization process must adhere to established standards, such as those outlined by the National Library of Indonesia's guidelines (Nurrahman and Lawanda 2023). This understanding has driven the author to leverage AI technology in analyzing and digitizing the *Simbur Cahaya* legal manuscript.

In addition to digitization, AI technology can be utilized to analyze manuscripts written in Classical Malay, a language that has become increasingly difficult to interpret. This challenge can be addressed through advanced tools such as Optical Character Recognition (OCR), which can assist in translating text (A. Setiawan, Sujaini, and Pn 2017). Furthermore, image segmentation techniques, such as Otsu Thresholding

combined with a Median Filter, can enhance the readability of deteriorated manuscripts (Novita 2022). Ancient texts like the *Simbur Cahaya* legal code can be analyzed to gain a deeper understanding of sanctions and customary law (Annisa, Idris, and Sholeh 2021). The application of Natural Language Processing (NLP) enables comprehensive text analysis, allowing for the identification of linguistic patterns and legal terminology within *Simbur Cahaya*. AI-based analysis is expected to provide more precise insights into legal sanction patterns and offer a clearer understanding of how the *Ringgit* fine system was applied in the social and economic context of historical Palembang.

The presentation of the use of AI technology can provide data in the form of attractive visualizations, making it easier to understand and access by a wide audience, including academics, students, and the general public. AI analysis is used from the initial methodological steps to the writing of history (Dhali 2024). Through AI analysis, it was found that the *ringgit* fine law in the *Simbur Cahaya* manuscript occurs with a frequency of 163 times out of 247 instances of the word "*ringgit*" used as punishment for the community.

The novelty of this study lies in the use of artificial intelligence to analyze the *Simbur Cahaya* manuscript, which is written in Classical Malay. Since much of the language used is no longer widely recognized, the manuscript is then translated into Indonesian. Technological advancements, particularly AI, are widely utilized across various fields. Therefore, analyzing the *Simbur Cahaya* manuscript using AI is necessary and can provide new insights, as to offers a modern approach to understanding and interpreting this historical text. By using AI, manuscripts that may be damaged or hard to read can be digitized, allowing for better preservation and easier access for study and interpretation (Dwivedi et al. 2021). AI helps preserve the manuscript's content and makes it more accessible to researchers and the general public (Teel 2024). AI can significantly speed up the text analysis process, efficiently identify patterns, and extract key information. By utilizing AI, the main themes and legal structures within the *Simbur Cahaya* manuscript can be more effectively discerned. Additionally, AI minimizes the potential for bias and human error, ensuring a more objective and accurate analysis (Terras 2022).

METHODS

This research employs the historical method, a set of systematic principles and rules aimed at assisting in collecting, critically evaluating, and synthesizing historical sources, typically presented in written form (Mahoney 2004). Meanwhile, Lucas (1985) describes the historical method as a procedure for critically examining and analyzing records and relics of the past. Referring to this concept, the steps of the historical method used include data collection or heuristics, source evaluation through criticism, data interpretation, and the compilation of research findings in the form of historiography (Ginzburg 2013). At each step, AI is utilized as a software tool to conduct the analysis. This method is illustrated through the following figure 1.

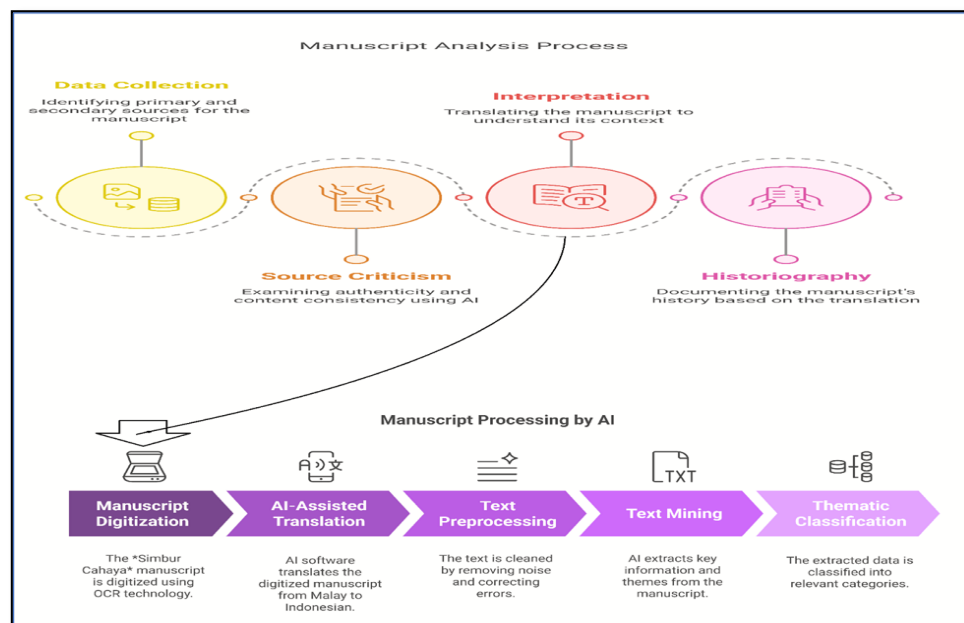


Figure 1. Research Process Diagram

Data collection (heuristics) involves observing and photographing the *Simbur Cahaya* manuscript available at the South Sumatra State Museum as a primary source (Guo 2020). Books (2022), specifically refers to the *Simbur Cahaya* manuscript codified by the Dutch in 1922 and 1927. Additionally, this data is supplemented with supporting documents such as academic works, journals, or previous studies on this manuscript as secondary sources (Daffa and Nurmutia 2023). In addition, a physical examination of the original manuscript housed in the South Sumatra State Museum was conducted by analyzing its physical attributes to identify the medium, writing style, and condition, which offer insights into its age and authenticity (Gilliland-Swetland 2000).

The next stage is Source Criticism (Obermeier 2023). Two types of criticism are used, namely external criticism, which aims to examine the authenticity of the manuscript (Buckley 2021), for example, by examining the paper material, ink, or writing style (paleography). Following this, internal criticism is conducted, which involves analyzing the content of the manuscript to understand the consistency and accuracy of the information conveyed (Honey 1999). In the internal criticism stage, AI technology is leveraged to analyze and compare the content of the manuscript with other similar texts.

The third stage is interpretation. In this stage, an analysis of the content of the *Simbur Cahaya* manuscript is conducted (Barasch 1997). Fully utilizing AI technology, the *Simbur Cahaya* manuscript, codified by the Dutch and written in Classical Malay, is translated into proper and accurate Indonesian to interpret the text. This process aims to understand the social, legal, and value-based contexts regulated within society at that time (Matsubara, Matsubara, and Lefor 2023). During the AI-assisted interpretation stage, the manuscript is analyzed through the following steps, such as: a) manuscript digitization, the *Simbur Cahaya* manuscript is digitized using Optical Character Recognition (OCR) technology. This process is carried out to translate the *Simbur Cahaya* manuscript using AI software. With the assistance of AI, the manuscript's Malay language is translated into Indonesian to recognize ancient scripts and correct character recognition errors; b) text preprocessing, after digitization, text preprocessing is performed to clean the data from noise or unnecessary characters. This process includes text normalization, the removal of irrelevant punctuation, and handling character recognition errors; and 3) text mining and thematic classification, AI performs text mining to extract key information from the text. Through this method, researchers identify the main themes within the manuscript, such as *Ringgit*, *Pesirah*, *Penghulu*, *Dusun*, and others. The extracted data is then classified into relevant categories for further study.

The final stage is historiography, which involves producing a book of the Transformation of the *Simbur Cahaya* Manuscript (Napier 2020). This process results in a well-structured Indonesian version of the manuscript, accompanied by important notes, particularly to clarify words that are no longer recognized or used today (Chemaya and Martin 2024).

RESULTS AND DISCUSSION

***Simbur Cahaya* Manuscript**

The areas outside the capital of the Palembang Kingdom, except for the islands of Bangka and Belitung, are referred to as *marga*, which is a collection of several villages (Istianda, Irwanto, and Giyanto 2023). The legal territories with the *marga* system, a social structure used by the community, have been in existence since the formation of the smallest clan groups in South Sumatra. This *marga* system continued to be implemented until the 1980s (Jaspan 1969). The legal territories with the *marga* system, a social structure used by the community, have been in existence since the formation of the smallest clan groups in South Sumatra. This *marga* system continued to be implemented until the 1980s (Soli, Sustianingsih, and Sarkowi 2022). The *marga* community, along with its administrative apparatus, had authority over justice, policing, customary land rights, and its members' income sources. They applied their own customary law according to their respective regions (Mahdi et al. 2023).

This customary law was then carefully examined by Ratu Sinuhun. Ratu Sinuhun is a wife of Pangeran Sido Ing Kenayan (1639–1650 AD), was described by Faille as a brilliant and highly motivated individual. Therefore, she was entrusted with formulating the fundamental legal principles governing the Uluan region (Hudaidah 2017). She was internalized Islamic elements into *Simbur Cahaya*. It was subsequently established as a "government regulation," later the *Simbur Cahaya* Law, to be used and implemented in South Sumatra society (Idris and Saputro 2021). Examining the contents of the *Simbur Cahaya* Law clearly reveals the completeness of a legal system, including elements that influence the enforcement of the law, such as the existence of the law itself, law enforcement, facilities, and the community members (Wirajaya et al. 2020). Each element meets specific requirements, and these four elements are interconnected in every chapter and article of the law.

The *Simbur Cahaya* manuscript is a work of customary law containing the customary legal rules and social norms applicable in the *marga* communities within the Sultanate of Palembang (Andhifani et al. 2023). The *Simbur Cahaya* manuscript stands as one of the most important and foundational written legacies in the history of Indonesia's customary law. As one of the oldest legal texts in the region, it provides valuable insight into the socio-legal structures that shaped local communities. The manuscript reflects the

legal norms and practices of the time, influencing social behavior and governance, and remains an essential reference for understanding the development of customary law in Indonesia (Putra and Pangestika 2024).

The *Simbur Cahaya* manuscript is a customary law from the Palembang *Lamo* government in the 17th century, enforced in the inland regions of Palembang. During the Dutch colonial period, Dutch Assistant Resident Van den Bossche successfully codified the *Simbur Cahaya* law in 1854. This law underwent several revisions in the years 1862, 1873, 1875, 1876, 1890, 1894, 1897, 1913, 1922, 1927, and 1939. This research focuses on the *Simbur Cahaya* manuscript codified by the Dutch in 1922 and 1927, which is preserved in the museum. The *Simbur Cahaya* manuscript preserved in the museum from 1922 can be seen in the following figure 2.

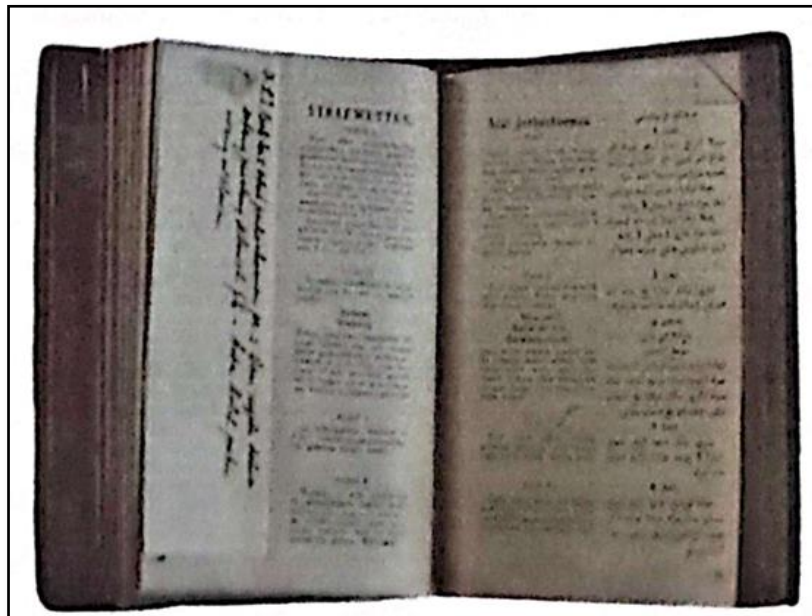


Figure 2. *Simbur Cahaya* Manuscript in 1922

(Source: Collection of the State Museum of South Sumatra)

The regulations covered in the "*Simbur Cahaya*" law consist of five chapters and 178 articles, which include:

Table 1. Contens in *Simbur Cahaya*

| Chapter | Contents |
|-------------|---|
| Chapter I | This chapter consists of 34 articles, explaining the customs of bachelors and girls as well as marriage. A law that regulates relations between men and women, including all prohibitions, and establishes the rules for marriage between men and women, as well as widowers and widows. |
| Chapter II | This chapter consists of 29 articles, which contain "clan regulations" and outline the procedures for selecting clan leaders and their deputies, as well as the power and authority attached to these positions. |
| Chapter III | This chapter consists of 34 articles, which discuss village and agricultural regulations. In addition, this law includes village regulations within one clan, called " <i>pengandang</i> " or <i>peroatin</i> , as well as their rights and responsibilities. In addition, it includes regulations for residents regarding agricultural land use. |
| Chapter IV | This chapter consists of 19 articles containing community regulations. These regulations apply to religious leaders, especially "Religious Leaders (Religious Figures), Khatibs and People", and contain their duties and rights in implementing Islamic law (<i>Syariah</i>). |
| Chapter V | This chapter consists of 64 articles, which contain "criminal regulations". The law outlines the criminal provisions regarding criminal acts and violations of the law, both in civil cases (property disputes) and in criminal cases (criminal acts). |

The rulers of Palembang seemingly understood the importance of law, recognizing that laws must be created for the sake of maintaining order and security within society. In the five chapters of the *Simbur Cahaya* law, the internalization of Islamic beliefs is clearly combined with the customary practices prevalent in the community (Sirajuddin, Hakim, and Johari 2022). This ability demonstrates the wisdom of the Palembang rulers regarding the importance of law. The internalization of Islam that followed cannot be denied, as it was part of a mutual agreement to establish an Islamic Sultanate (Amalia and Hudaidah 2022). The laws that were created were examined and infused with Islamic principles, particularly by incorporating Islamic laws, especially concerning the regulations of social conduct and Islamic religious institutions (Sham and Salim 1993).

In chapter one, the social concept is evident, setting clear boundaries between the relationships of men and women, which, when examined more deeply, stem from Islamic teachings. Similarly, in chapter four, the internalization of Islamic principles aligns with the development of Islam itself (Zakawali and Hudaidah 2021). The issue of religious officials in the Uluan region is addressed in the *Simbur Cahaya* Law, where the *Penghulu* serves as the head of religious affairs with the authority to adjudicate all religious matters. In carrying out his duties, he is assisted by the *Khatib* or lower-level religious scholars (*ulama*). As the leader handling religious matters, the *Penghulu* oversees religious affairs

in the region of *Pasirah*. In this area, a *Lebai Penghulu* holds authority over religious law. His position as the head includes regulating the community within his *marga*, and the community is required to follow the orders of the *Lebai Penghulu*. The *Lebai Penghulu* is considered a bureaucratic scholar or *ulama birokrat* (Hudaidah, Supriyadi, and Heryana 2023).

The customary courts in the rural areas are conducted by the *Pasirah*, *Penggawa*, and *Peroatin* as the adat leaders. These leaders in the upper river regions (*hulu sungai*) continue to enforce customary law, both in criminal and civil matters, for each *marga*. This practice has become a customary tradition within the Palembang community (Luthfi 2022).

The *Simbur Cahaya* Law is a legal system that represents an element of modern law within the Western conceptual framework (Darmawan 2020). It is undeniable that the Palembang Sultanate has inherited a brilliant legal tradition. The Dutch deliberately codified the *Simbur Cahaya* Law to facilitate their control over the former territory of the Palembang Darussalam Sultanate in the Uluang region. The colonial Dutch government codified it into customary law, first printed in 1865 using the Arabic-Malay script (Zami, Ritonga, and Gunawan 2023).

The Role of AI in Analyzing the *Simbur Cahaya* Manuscript

Ancient manuscripts often suffer physical damage over time, such as tears, missing pages, fading ink, or even the rotting of paper and other materials. The process of physical preservation can be very costly and time-consuming, and some parts of the manuscript may no longer be clearly readable (Huo et al. 2023). Therefore, it is crucial to preserve manuscripts with the help of technology so that they can continue to be studied in depth. This technology also applies to the condition of the *Simbur Cahaya* manuscript. Moreover, the *Simbur Cahaya* manuscript is written in a language that may no longer be commonly used in daily life, namely Classical Malay with influences of Arabic elements or local terminology. The differences in grammar, sentence structure, and spelling used at the time of the manuscript's writing make it difficult to interpret using modern language standards.

Therefore, the analysis of the *Simbur Cahaya* manuscript often relies on a small group of manuscript and philology experts who possess specialized knowledge of the language, culture, and historical context involved (Becker 2000). Meanwhile, the number

of researchers with such expertise is limited, making the analysis process extremely time-consuming. The manuscript must be examined in great detail, which can take months or even years for a single manuscript (Webb 2016). As a result, the interpretation of the manuscript is highly dependent on the perspective of the manuscript researcher. Manual interpretations often vary between one researcher and another, potentially leading to biased or inaccurate conclusions (Jacobs and Jucker 1995). To overcome this problem, researchers use technology to read and analyze the *Simbur Cahaya* manuscript, especially with the increasing use of artificial intelligence in various fields of study (Aslam and Nisar 2023). This situation presents an intriguing opportunity to utilize AI for reading and analyzing the *Simbur Cahaya* manuscript (Lau et al. 2024). The advanced capabilities of AI technology are a crucial consideration in this research.

Based on the literature review, it is known that AI is capable of processing large volumes of text much faster than manual methods. AI can perform natural language processing (NLP), which helps in deciphering and translating ancient languages into modern ones (Khurana et al. 2023). With AI, specific patterns in the text, such as the repetition of legal rules, relationships between figures in the manuscript, or the social structure governed by customary law, can be quickly recognized (Mahadevkar et al. 2024). The use of AI technology enables the discovery of new insights or interpretations of the *Simbur Cahaya* manuscript, which was previously studied using conventional methods, resulting in incomplete analysis. AI can assist in identifying hidden aspects or significant legal details within the manuscript (Liebeskind, Liebeskind, and Bouhnik 2024). The most important aspect is that by utilizing AI, the *Simbur Cahaya* manuscript can be transformed into a digital format, making it easier to access and preserve for future generations (Piazzoni 2024). This preservation is crucial to ensure that ancient manuscripts remain available for future generations, considering their vulnerability to physical damage. It also facilitates researchers in understanding the contents of the manuscript more effectively (S. F. Wibowo et al. 2024). Therefore, the *Simbur Cahaya* manuscript, which consists of many pages and complex texts, can be analyzed in a short period of time by AI, allowing for the efficient identification of patterns, themes, and legal structures (Spring, Faulconbridge, and Sarwar 2022).

In analyzing the *Simbur Cahaya* manuscript, which is based on Natural Language Processing (NLP), a technology that leverages computational capabilities to understand

and analyze human language automatically (Melechovsky et al. 2022). NLP is a branch of Artificial Intelligence (AI) that focuses on the interaction between computers and natural language, enabling computers to analyze, understand, and generate text in a way that mimics human capabilities (Priya, Nandhini, and Gnanasekaran 2021). This process allows a more detailed and systematic analysis of word and phrase frequencies in the *Simbur Cahaya* manuscript. It is useful for identifying keywords or important concepts that are frequently used, which can reflect the main focus and central themes of the law.

With AI, a comparison of manuscripts is carried out to identify unique characteristics (Pataranutaporn et al. 2021). Darmawan (2020) discusses the existence and importance of ancient legal manuscripts from the Malay Archipelago, including the *Simbur Cahaya* and Qonun law manuscripts, as sources of local wisdom to inform the development of the Indonesian national legal system. Based on AI analysis, a fundamental difference between the two is as follows: the Qanun of Aceh is more oriented towards the comprehensive enforcement of Islamic law, covering almost all aspects of society's life, while *Simbur Cahaya* is a customary law system that is harmonized with Islam, focusing more on the social and customary life in Palembang. Similarly, the punishments imposed in the two legal systems are very different. In the Qanun of Aceh, the penalties are stricter, in line with Islamic law, with a focus on the implementation of *hudud* (fixed punishments). On the other hand, the *Simbur Cahaya* focuses more on customary punishments, which are influenced by local traditions and norms, and do not strictly follow the *hudud* system (Efendi, Akbar, and Khalidi 2024).

Fine System of *Ringgit* in *Simbur Cahaya* Manuscript

Based on a deep analysis assisted by AI, it was found that legal violations in *Simbur Cahaya* are more flexible, emphasizing fines (*ringgit*) or social punishments that align with local customary traditions (Hermanto 2021). Interestingly, *Simbur Cahaya* has since inspired modern legal scholars in Indonesia to revive the use of fines as a form of punishment for criminal offenses. This system, which focuses on restorative justice and social reconciliation, has sparked discussions on its relevance and potential for application in contemporary legal frameworks. By emphasizing fines and community-based penalties, *Simbur Cahaya* presents an alternative to more punitive measures, offering a model that prioritizes social harmony and the restoration of balance within society (Nurcahyo et al. 2024). Referring to the results of the AI analysis, "*ringgit*" is the

most frequently used fine in the *Simbur Cahaya* manuscript, as shown in the following figure 3.



Figure 3. *Ringgit* Fine in the *Simbur Cahaya* manuscript

Based on the cloud text analysis of all the words in the *Simbur Cahaya* manuscript, the term "*ringgit* fine" appears 158 times, compared to fines in the form of marriage, detention, or imprisonment, customary punishment granted to those in authority, compensation in the form of goods, compensation in the form of animals (goats, buffaloes, and chickens), royal punishment, surrender law, customary law, *rupiah*, and "*tepung tawar*" (a traditional blessing ritual) (Abdullah et al. 2020). Let's look at the distribution of the word "*ringgit*" across different chapters of the *Simbur Cahaya* manuscript. It shows how often this term appears in each section, highlighting its prominence and significance in the legal context of the text. The following breakdown illustrates the frequency of "*ringgit*" in figure 4 throughout the chapters:

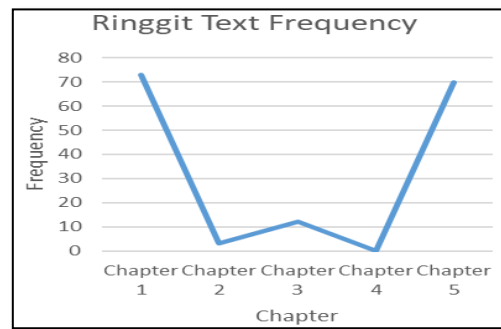


Figure 4. Frequency of *Ringgit* Fine

In Chapter I = Customs of Bachelors, Maidens, and Marriage, fines appear in Articles 1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 29, 30, 31, and 32, or a total of 24 articles out of 34 articles. If we look at the number of words that appear in Chapter I, there are 73 words. In addition, there are also mentions of the punishment of marriage, fines in the form of goats, buffaloes, and king punishment. In Chapter II = Marga Regulations, fines appear in Articles 14, 18, and 19, which constitute three articles out of a total of 29 articles. However, there are also punishments in the form of detention, confinement, and customary law. Besides the fine of '*ringgit*,' other punishments include imprisonment under authority, '*tepung tawar*' (traditional blessing), compensation, rupiah, and king punishment. In Chapter IV = Rules of the Community, no '*ringgit*' fine is found because this chapter refers to Islamic law. In Chapter V = Traditional Punishments, fines appear in Articles 8, 11, 13, 14, 15, 16, 17, 19, 20, 22, 23, 25, 26, 28, 30, 32, 36, 37, 38, 39, 41, 42, 43, 45, 46, 48, 49, and in the rules for sharing money in Articles 59-64, referring to the distribution of the *ringgit* fine. In Chapter V, there are 33 articles out of the total 64 articles. In this chapter, other forms of punishment also appear, such as rupiah, surrender punishment, king punishment, *tepung tawar*, rice payment, coconut, betel, compensation, replacement of goods, and dismissal punishment

Ringgit in the *Simbur Cahaya* manuscript becomes significant because it is used as a fine that serves to uphold social justice. When someone violates norms or rules in society, the fine in the form of *ringgit* becomes a way to atone for the wrongdoing (N. S. Putri 2023). The *Ringgit* reflects a social system in which every violation must be balanced with a form of payment or restitution to maintain the social balance and morality of the community (Holmgren 1983). This fine demonstrates that society values justice

and equality, where violations of norms must be punished in accordance with the offense committed (R. A. Posner 1983). The fine in *ringgit* for an offense can be redeemed with the lowest value of half a *ringgit* and the highest value of six *ringgit*.

In historical records, the currency "*ringgit*" was used in the Palembang Malay region starting from the Islamic period in Palembang and continued to be referred to by this name until the 1970s. During this period, the *ringgit* was not only a form of currency but also a significant part of the local legal and social systems, where it was utilized as a fine or penalty in legal cases, as reflected in the *Simbur Cahaya* manuscript. At that time, the fine in *ringgit* reflected a high economic value, which is why it was considered a penalty for punishing violations of the rules within the customary law of the inland regions of Palembang.

In many cases, Posner argued that fines are a form of justice, in line with the use of *ringgit* as a fine, which became an instrument to enforce justice within society. In this context, the fine in the form of *ringgit* serves to provide a financial consequence for anyone who violates the existing norms or rules (E. Posner 2002). The imposition of fines is society's way of regulating violations by giving proportional punishment to the perpetrator, namely by charging fees according to the violation committed. Essentially, the fine aims to restore balance in a society disrupted by the violation (Holmgren 1983).

On the other hand, *Simbur Cahaya* can also be seen as a critique of a social system that might be overly reliant on material values to assess wrongdoings or injustices through money (Walker 2006). The fine in the form of *ringgit* may reflect the commodification of moral values and how justice in society can be influenced by economic factors (Tunick 2023). In this case, the emphasis on the *ringgit* as a form of punishment illustrates the tension between spiritual and worldly values in society.

The fine in the form of *ringgit* also serves as a warning to other members of society (Hirsch 1992). With the imposition of fines, society is given a signal about the importance of adhering to existing norms and rules. It also reflects how the community strives to maintain order and collective well-being, where each individual is held accountable for their actions within a broader framework. This fine serves as a reminder that social norms and rules must be respected, and anyone who violates them must pay a certain price, both morally and financially (Polinsky and Shavell 2000). In this case, the *ringgit* as a fine serves to enforce social norms and create a deterrent effect (Kahan 2019).

By imposing fines on offenders, society can maintain social harmony and uphold the existing social order (Pitts and Etzioni 2003).

CONCLUSION

The *ringgit* served as a key component in maintaining social order within the legal framework of the *Simbur Cahaya* manuscript. Based on the AI analysis, the frequency of the term "*ringgit*" as a fine—158 times out of 247 instances—demonstrates the central role it played in legal sanctions. This high frequency underscores how consistently the *ringgit* was utilized as a form of punishment for various offenses, ranging from minor to significant legal violations. The application of *ringgit* fines in the *Simbur Cahaya* manuscript reflects a form of justice where offenders' violations were compensated monetarily, contributing to the restoration of social harmony.

Through the use of AI, particularly Natural Language Processing (NLP), we are able to analyze these recurring mentions of *ringgit* across different chapters and contextualize them in the broader framework of customary law. This level of analysis, enhanced by AI's ability to process large datasets quickly and efficiently, highlights patterns that would be more difficult to discern using traditional, manual methods. Thus, AI provides a valuable tool for uncovering the significance of *ringgit* as a legal and economic instrument in the *Simbur Cahaya* manuscript, ultimately aiding in a deeper understanding of this customary legal system.

AI contributes to manuscript studies in the future through the digitization and preservation of ancient texts, recognition of script and language using OCR and NLP technologies, and analysis of linguistic style and historical context. Additionally, AI can reconstruct missing parts of manuscripts with predictive algorithms, enabling faster and more accurate research. The fundamental difference between AI and manual analysis lies in speed and efficiency, where AI can process thousands of pages in a short time, while manual analysis takes longer but provides more contextual and interpretative depth.

Acknowledgment

Thank you to the Rector of Sriwijaya University and the Head of LPPM for providing the PNBP funding for the 2024 University competitive grant research. Thank you also to the Dean of the Faculty of Teacher Training and Education for supporting the implementation of this research activity.

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