

# CHAPTER I

## INTRODUCTION

### 1.1 Research Background

The rapid development of Information and Communication Technology (ICT) in the digital era has brought fundamental changes to various aspects of human life. Telecommunications play a crucial and strategic role in supporting societal activities, both at the individual and institutional levels. This technology offers significant opportunities, including easier access to global information, enhanced online learning, business expansion, and strengthened social connections across regions. However, not all segments of society have equal access to this technology, leading to a disparity known as the digital divide (Andrew, 2011). Within the context of national development, ICT is not only a necessity but also a strategic instrument that contributes to improving the quality of education, fostering economic growth, and advancing the telecommunications and informatics industries in Indonesia.

The telecommunications sector holds a highly strategic position in the broad distribution of information to the public. Its role extends beyond facilitating communication; it also serves as a driver of national economic growth. According to data from the International Telecommunication Union (ITU), every 1% increase in teledensity has the potential to boost national economic growth by up to 3%. This research highlights that investments and advancements in telecommunications have a significant impact on social aspects and serve as a catalyst for sustainable

economic development. Terminologically, telecommunications are defined as electronic communication that utilizes technological devices to enable the exchange of information (Hamjen, 2015). Furthermore, Law No. 36 of 1999, Article 1, describes telecommunications as the transmission and/or reception of information in the form of signs, signals, writing, images, or sounds via communication systems such as radio, cable, or other electromagnetic media. This definition highlights the broad scope and complexity of telecommunications in contemporary life.

The rapid pace of technological change, shifts in user behavior, and their impacts on business, social structures, and politics have become increasingly evident. Innovations such as 5G networks, the Internet of Things (IoT), and Artificial Intelligence (AI) are transforming global communication patterns (Kelly, 2016). The Ministry of Communication and Digital Affairs (Komdigi) of the Republic of Indonesia, as mandated by Law No. 39 of 2008 on State Ministries (Kominfo, 2015), plays a strategic role not only at the national level but also within international forums, including the ASEAN Digital Ministers' Meeting (ADGMIN), the World Summit on the Information Society (WSIS), and events organized by the ITU. Indonesia's active participation in these forums requires linguistic preparedness and a precise understanding of technical terminology that aligns with international standards.

The terminology used by international telecommunications institutions is often precise and dynamic, necessitating an accurate and consistent translation

system to prevent misunderstandings. Misinterpretations of technical terms such as network slicing, low latency, spectrum management, and data sovereignty may result in policy misalignments and hinder digital diplomacy. Therefore, the telecommunication glossary is essential as a translation aid for technical documents and official communications within the ministry. This glossary is crucial for maintaining terminological consistency, enhancing Indonesia's position in global digital discourse, and enhancing decision-making efficiency in transnational policy contexts.

In the era of globalization, driven by the rapid advancement of ICT, intercultural communication has become increasingly important, particularly in government and technical diplomacy. Diplomatic relations are built on intercultural communication as a means of fostering international cooperation to advance foreign policy interests, ensure cross-border collaboration, and establish long-term formal and informal relations (Biletska et al., 2021). Today, countries around the world collaborate through multilateral mechanisms to address complex technical issues such as radio spectrum frequency, digital infrastructure, and cybersecurity regulations. These international agreements are then adopted into Indonesia's national regulations, requiring accurate translations to preserve meaning and policy intent.

Telecommunications is a strategic sector characterized by precise technical terminology and regulations. The high rate of internet usage in Indonesia, reaching 69.21% of the population, and mobile phone ownership, reaching 67.29%,

demonstrate that telecommunications have become an integral part of daily life, demanding adequate and accurate infrastructure and communication systems (BPS, 2024). This research also indicates that regulations in the telecommunications sector must not only adapt to technological advancements but also be formulated using accurate and consistent technical terminology to ensure effective communication at both the national and international levels.

Translation in this field requires precision and consistency in the use of technical terms to ensure mutual understanding, especially in telecommunications. Errors in translating or interpreting technical documents may lead to changes in meaning with potential legal and diplomatic implications. Technical terminology is even considered one of the primary sources of errors encountered daily by professional translators (Yue et.al, 2024). Therefore, it is necessary to develop innovations that ensure accuracy, efficiency, and clarity of meaning, particularly in translating legal and technical documents.

The Ministry of Communication and Digital Affairs of the Republic of Indonesia plays a crucial role in formulating, implementing, and coordinating national policies related to communications and digital affairs. One of its key functions is to serve as Indonesia's official representative in international forums such as the International Telecommunication Union (ITU), the Asia Pacific Telecommunication (APT), and the International Telecommunications Satellite Organization (ITSO). In these forums, Indonesian delegates discuss technical regulations, negotiate agreements, and present their national positions on global

policies, particularly in the telecommunications sector. The global policies agreed upon in these forums serve as the basis for Indonesia to draft national regulations for managing its telecommunications sector. Thus, the use of clear and consistent technical terminology is crucial to ensure accurate interpretation and avoid ambiguity in translating legal and technical documents.

However, the Ministry of Communication and Digital Affairs has not yet developed an official standardized list of technical terms to be used in translating such documents. Based on interviews, policy analysts at the ministry often face difficulties in finding equivalent terms in the Indonesian language. Although sworn translators are employed, specific technical terms continue to pose challenges for translation. Another method involves referring to an existing glossary in spreadsheet form; however, this list is disorganized and not alphabetically arranged. Consequently, translators may use different equivalents for the same term or inconsistent terminology, which may lead to errors in official documents. Such inconsistency not only disrupts workflow but also risks undermining Indonesia's position in technical diplomacy at the international level.

To address this issue, developing a telecommunications glossary in glossary format offers an effective solution. This format provides practicality and ease of use for translators or ministry staff engaged in translating or drafting official documents. The glossary can be compiled based on the most frequently used terms found in ministry documents as well as international materials such as ITU resolutions, APT technical reports, and ITSO agreements. This approach ensures

that the glossary is not only relevant to national contexts but also aligned with international usage.

In light of these considerations, the researcher is motivated to develop an innovative tool that supports translation work by ensuring consistency and high-quality outputs. This study aims to meet the institutional need for a reliable and standardized translation aid while contributing to the academic field of technical translation and terminology documentation. Therefore, this research proposes the development of the telecommunication glossary as its primary focus.

## **1.2 Statements of the Problems**

Based on the description in the Research Background, this study tries to answer the research question below:

- a. How is the process of developing a telecommunications glossary for the Ministry of Communication and Digital Affairs of the Republic of Indonesia carried out to support translation consistency, strengthen international technical diplomacy, and ensure terminology alignment with both national and global standards?
- b. What are the feedback and suggestions from users and policy analysts regarding the design of the telecommunications glossary that considers the most frequently used technical terms, relevant international references, and user-friendliness?

### **1.3 Objectives of Research**

Based on the statement above, the purpose of this research are:

- a. To create a telecommunications glossary development for the Ministry of Communication and Digital Affairs of the Republic of Indonesia;
- b. To the feedback and suggestions into the compilation of the telecommunication glossary, ensuring it contains definitions, usage contexts, and structured term equivalents (Indonesian-English).

### **1.4 Significance of Research**

There are three types of advantages of the research, such as:

#### **1. Theoretical Contributions**

The results of this research are expected to broaden the scope of applied lexicography, particularly in the development of the telecommunication glossaries within the radiocommunication, standardization, and development sector, and to provide a methodological foundation for compiling glossary entry lists that incorporate contextual usage and undergo expert validation.

#### **2. Practical Contributions**

- a. Enhance the quality, consistency, and precision of technical document translations to meet the Ministry's requirements;
- b. Serve as an official reference for the harmonization of national and international terminology.

## **1.5 Output of the Research**

This research has produced the Telecommunications Glossary, a comprehensive reference book that contains telecommunications terms in both Indonesian and English. Each entry is accompanied by precise definitions, contextual usage, and illustrative example sentences sourced from the official documents of the Ministry of Communication and Digital Affairs of the Republic of Indonesia.

The glossary is specifically designed to support the Ministry's operational and documentation requirements, particularly in managing and standardizing terms that frequently appear in regulations, reports, and official publications. Each glossary entry is presented with in-depth explanations covering relevant fields such as infrastructure, policy, and cybersecurity, along with practical usage examples and references to related regulations or authoritative sources. The Glossary is organized into three primary subject areas: Telecommunications, Standardization, and Development. However, this research focuses on the Development of the telecommunication section, which includes the most essential and widely used terms in the field.

To ensure maximum accessibility, the glossary is developed in two formats: printed and digital (PDF). The digital version is equipped with advanced features, including keyword search functionality, which enables users to efficiently retrieve terms, as well as offline access capability for use in areas with limited internet connectivity. Consequently, the final output of this research serves not only as an

academic reference but also as a practical guide for stakeholders in the telecommunications sector.

Specifically, the book contains 130 pages with a total of 225 terms evenly distributed across three sectors, each comprising 75 term entries. For letters A to Q, each sector includes four terms per letter. For letters after Q, from R to Z, each sector includes three terms per letter.