CHAPTER 2
LITERATURE REVIEW

A. Theoretical Framework

1. Technology Acceptance Model

The Technology Acceptance Model (TAM), originally developed by Davis in 1989 (Balakrishnan et al., 2024), is a widely used theoretical framework that seeks to provide insight into the factors that contribute to individuals' acceptance and utilization of technology. Davis identified two key components, which are perceived usefulness and perceived ease of use, that influence user's attitude and intentions toward using technology. Although the original TAM includes other aspects, such as attitude toward using, behavioral intention, and actual use, these are considered outcome variables rather than the primary aspect of the model. In other words, the original TAM assumed that acceptance is a result of perceived usefulness and perceived ease of use rather than a standalone aspect.

In this study, TAM is applied using the version adapted by Al-Gahtani (2001), who conceptualizes the model into three main components: perceived usefulness, perceived ease of use, and acceptance. Unlike the original by Davis (1989), which includes attitude, behavioral intention, and actual system use, the Al-Gahtani adaptation conceptualizes acceptance as users' evaluative judgments toward the system, such as satisfaction, approval, and willingness to continue using the system. This model is considered more appropriate for this study, as it focuses on understanding students' perceptions rather than predicting their behavioral intentions or measuring actual usage.

In the context of this research, perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance. This follows from the definition of the word useful, which is capable of being used advantageously. Davis (1989) defined perceived usefulness as the degree to which a person believes that sing a particular system

would enhance his or her job performance." In other words, a system is considered useful when users believe that using the system will improve their performance.

In contrast, perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort. This follows from the definition of ease, which is freedom from difficulty or great effort. Effort is a finite resource that a person may allocate to the various activities for which he or she is responsible (Roy Radner, 1994). Therefore, it can be argued that, all else being equal, an application perceived to be easier to use than another is more likely to be accepted by users (Fred D. Davis, 1989).

The acceptance component reflects students' overall evaluation towards Mendeley after using the system, indicating their decision to accept or reject the application. In the original TAM proposed by Davis (1989), acceptance is not regarded as a standalone aspect, but is reflected indirectly through outcome variables such as attitude toward using, behavioral intention, and actual use. Al-Gahtani (2001) operationalized acceptance as a single evaluative aspect that represents users' overall judgment after using the system, such as satisfaction, approval, and willingness to continue using the system. Therefore, acceptance in this study was positioned as a standalone aspect that emerged as an outcome of perceived usefulness and ease of use, indicating that adopt this technology in a satisfactory manner.

This study gathered data related to the three main components using the version of the Technology Acceptance Model (TAM) proposed by Al-Gahtani (2001). The objective is to gain a more comprehensive understanding of the factors that influence students' acceptance of Mendeley.

2. Academic Writing

One of the fundamental competencies that undergraduate students are expected to develop is the ability to write academic texts. Academic writing serves not only to convey information but also to present ideas and arguments in a formal and structured manner. In accordance with the definitions provided

by Hogue (2008), academic writing is defined as a form of writing utilized in college classes with the objective of providing explanations or information to an audience comprising primarily instructors and fellow students. This indicates that it encompasses a wider range of writing types, including essays, scientific articles, response papers, critical analyses, and literature reviews. In brief, it has a comprehensive scope of writing types, each with distinct characteristics and varying degrees of complexity in content development. The deeper purpose of any academic writing is to persuade the audience of the significance of the author's research. Therefore, specific language tools must be selected and applied.

As Oshima and Hogue (2007) argue, academic writing differs from both personal writing and creative writing regarding to its formality. While personal and creative writing are informal, academic writing is formal. The characteristics of academic writing, as defined by Hartley (2008) include the following: visible to do, pompous, long-winded, technical, impersonal, authoritative, humorless, elitist, excludes outsiders, fits with certain circumstances, and eligible for non-native speakers. In the context of academic writing, students are encouraged to develop their skills in this particular form of writing. They are also guided in adopting the conventions of academic writing, including the use of references and the formatting of the text (S. Wahyuningsih, 2018).

A large number of studies have shown that writing is a skill that is a challenge for many students (Matikainen, 2024). Academic writing is always considered a difficult and essential skill (Akhtar, 2020). However, despite the evidence of the importance of writing as a critical academic skill, students are often asked to write independently while often lacking significant writing support (Ángel & García, 2017). In an action research study examining the benefits of an academic writing course in Turkey, Tomak (2022) revealed that all the first-year university students in his study reported positive outcomes, specifically highlighting improvements in accurate sentence structure,

vocabulary choice, organization for academic papers, and academic prose in general.

3. Mendeley Reference Management

In the contemporary academic context, reference management software has become a vital tool for supporting the writing process (Wahyuningsih, 2018). Such software can also maintain databases and create standalone bibliographies (Basak, 2014). Indeed, academic writing necessitates the incorporation of well-referenced and bibliographically organized material. The creation of references is determined by the stylistic preferences associated with the chosen citation format. Furthermore, the manual creation of bibliographies is a time-consuming process. In light of this, reference management software is an invaluable tool for academics, facilitating the enhancement of academic writing (Wahyuningsih, 2018).

Mendeley is a reference manager that has been in existence since 2007. It was originally developed by three university students in Germany and was subsequently purchased by Elsevier, an international and well-known publisher, in 2013 (Ariyanti & Fitriana, 2020). Mendeley is designed with two platforms: an online platform accessible via the official Mendeley website (www.mendeley.com) and an offline platform, also known as Mendeley Desktop. The system is developed based on three principles: reference management, social networking, and research data (Arief & Handoko, 2016). Specifically, reference management allows researchers to manage their articles in terms of citation methods, expert theories, and the references of the sources cited (Ariyanti & Fitriana, 2020).

Mendeley is a software program designed to facilitate the organization and compilation of scientific work excerpts in PDF format on a free and open-source web platform (Holt Zaugg, Richard E. West, Isaku Tateishi, 2011). Meanwhile, based on Zhang (2012), Mendeley is software that enables the organization and compilation of references in an appropriate manner and the saving of scientific works in PDF format. Additionally, Mendeley is capable of

managing citations within scientific paper formats, automatically formatting them according to the selected style. This can be achieved by setting up a plug-in for both Word and OpenOffice.

B. Study of the Relevant Research

Several research studies have examined the use of Mendeley as reference management software. Firstly, the earliest research by Basri and Patak (2016) examines the students' perception of Mendeley Reference Management Software (MRMS), with a particular emphasis on academic honesty as a crucial element in fostering academic integrity and preventing academic dishonesty. The study presents the findings of a survey conducted using the online platform SurveyMonkey. The result indicates that the majority of Indonesian students found the Mendeley Reference Management Software (MRMS) with the Reference Manager feature to be relatively straightforward to use. Despite this, some students encountered challenges when attempting to utilize certain functions, including flexible formatting, collaborative bibliography editing, annotation sharing with other users, intuitive navigation, team plans, building an online presence, and discovering new collaborators.

Secondly, quantitative research conducted by Zahro and Nugraha (2021), determined the use of Mendeley in students of the Surabaya State University utilizing the Technology Acceptance Model (TAM) approach, such as attitude towards using, perceived ease of use, perceived usefulness, behavioral intention, and actual system usage.

Thirdly, the mixed-method research design, particularly the explanatory sequential method proposed by Santosa et al. (2021), was employed to investigate the perceptions of undergraduate students regarding the utilization of the Mendeley referencing system in the context of thesis writing. Additionally, the study described the challenges encountered by undergraduate students when employing Mendeley for thesis writing. The instruments utilized in this study are a questionnaire and an interview. The result of the

questionnaire indicated a markedly positive perception, with students expressing strong agreement that Mendeley is a highly useful tool for thesis writing. Additionally, the interview findings revealed that students encountered difficulties when attempting to connect Mendeley to Ms. Word and generate the metadata for articles and books automatically.

A recent study by Muzammil et al. (2024) utilized a mixed-method. Quantitatively, data were collected via a survey instrument administered via Google Forms, which was then subjected to analysis using the Partial Least Square Structural Equation Modeling (PLS-SEM) statistical testing method. To gain further insight, the study employed open-ended interviews with a select group of students to explain the findings of the quantitative research. This study seeks to identify the factors that influence the behavioral intention to use Mendeley among second-semester students using the Unified Theory of Acceptance and Use of Technology (UTAUT). The findings indicate that students have a positive perception of the Mendeley application, viewing it as a tool that can facilitate academic writing and is easy to learn, and recognizing the influence of lectures and peer networks as the primary factors driving the adoption of the application.

The above studies have demonstrated an overall positive perception of Mendeley. However, there are still some challenges that users often encounter. This research explored the perceptions of undergraduate students regarding Mendeley as a tool for academic referencing, thereby providing a more in-depth understanding of user perceptions of the effectiveness of this application in the context of academic writing.