BAB 2

LITERATURE REVIEW

2.1 The Technology Acceptance Model (TAM) Framework

The Technology Acceptance Model (TAM) is a widely recognized and influential model in the field of information systems research. It provides a theoretical framework for understanding and predicting user acceptance of new technologies. This chapter will delve into the definition and principles of the TAM framework, exploring its key components and their interrelationships.

2.1.1 Definition of TAM

Technology Acceptance Model (TAM) is one of the models used to predict use and assess the acceptability of a technology or information system. This model was proposed by Davis (1980), to investigate users' behaviour in using new technology based on social psychological theories model by Ajzen and Fishbien named Theory of Reasoned Action. TAM by Davis (1989) provided a theoretical context that could explain the relationship of attitudes, intention of the user and behaviour. It used to understand and predict how users adopt and accept new technologies.

Alfadda and Mahdi (2021) stated that TAM was created as a model to predict the possibilities that users will develop in implementing the latest technology. This statement is also in line with research by Turner et al. (2010) by applying the TAM model to the technology currently used, it can predict how the technology has the potential to develop in the future. Another study stated that, TAM can be used to explain further variance in technology use with the inclusion of additional exogenous variables such as subjective norms, experience and joy (Chang et al., 2017). TAM was used to investigate the perceptions of educators who still have to use online learning after Covid-19, and the results show that the ease of use factor of a technology affects their attitudes towards using online learning for learning. (Bajaj et al., 2021). These findings suggest that TAM is a valuable tool for understanding the use of technology. By understanding the factors that influence technology acceptance, educators can create technologies that are more likely to be adopted and use effectively.

Moreover, TAM focuses on two primary determinants of technology acceptance: perceived usefulness (PU) and perceived ease of use (PEOU). PU refers to the user's belief that using the technology will develop their performance or productivity, while PEOU refers to the user's perception of how easy or difficult it is to use the technology. These two factors are believed to directly influence a user's attitude towards using the technology, which ultimately leads to their intention to use it. In the field of education, TAM has explored how learners' PU and PEOU can affect their acceptance of learning technology (Park, 2009). Therefore, in this particular study, TAM has been selected to help understand the initial adoption of the Canvas LMS application in TELL course for EFL students.

TAM provides a valuable framework for predicting the use of technology in educational settings and help educators to develop technologies that are more likely to be adopted and used effectively by learners. The application of TAM in this study investigating EFL students' perceptions of Canvas LMS determine the model's relevance and potential for informing the design and implementation of technology-enhanced learning environments.

2.1.2 Principles of TAM in Classroom

The TAM consists of five aspects, such a perceived ease of use, perceived usefulness, attitude towards use, behavioural intention to use and actual use. Most significant factors of this model are perceived usefulness (PU) and perceived ease of use (PEOU). Davis (1989), stated that Perceived usefulness is defined as the degree to which a user believes that using a particular technology will enhance their job performance. People choose to use or leave the technology if it improves their performance, which also shows that PU has an impact on attitudes towards the use of related technologies. For the understanding of PEOU itself is a state when the user believes that using a certain system would be free of effort (Davis, 1989). These two factors can affect students' attitude towards the certain technology.

Attitude is defined as the degree to which a user is interested to use the system (Davis, 1989). Attitude can affect user Behavioural intention in using the system. This is in line with the research by Saadé et al (2007) that the user finds the

technology are valuable they tend to develop positive attitude toward the technology. Moreover, this recent study focusing on Perceived Usefulness and Perceived ease of use because these two factors are crucial in TAM frameworks. Previous research belief that PU and PEOU directly effecting user's intention to develop technology (Al-Ghatani, 2016; Lee et al., 2014; Tarhini et al., 2014 as cited in Bailey, 2020). Almashhadani et al. (2023) stated that PU and PEOU are fundamental causes for adopting new technology and explaining behavioural intention to accept and use the new technology. Another study about TAM in educational aspect by Pituch and Lee (2006) stated that perceived usefulness and perceived ease of use determine the learners' acceptance and overall learning performance. Overall, these studies demonstrate the continued relevance and applicability of the TAM framework in understanding technology acceptance in educational settings. They offer valuable insights for educators and developers in designing and implementing technology-based learning solutions that are both useful and user-friendly.

The TAM framework provides a valuable foundation for understanding and predicting user acceptance of new technologies. By understanding the principles of TAM, researchers and practitioners can gain valuable insights into how to promote the successful adoption of new technologies.
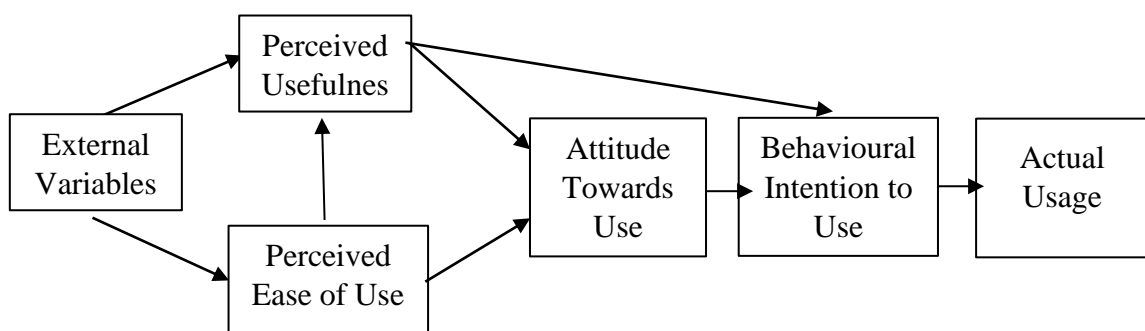

Figure 1. *TAM Model by Davis (1989)*

2.2 Student's Perception

Perception is a complex process that allows us to make sense of the world around us. It involves receiving information from our senses, interpreting that

information, and using it to guide our actions. Perception refers to the way sensory information is organized, interpreted, and consciously experienced (Spielman et al. 2021). According to Albright (2015), Perception enriches sensation by reference to other knowledge or experience. Another study stated that perception differs from sensation by consciousness of farther facts associated with the object of the sensation (James, 1890). This means that perception can be described as how we interpret sensations that are influenced by our knowledge, experiences, and thoughts we experienced. Our brains do not simply receive information from our senses and passively process it. Instead, our brains actively construct our perceptions of the world based on our prior experiences and knowledge. Moreover, our understanding of perception has grown considerably in recent years.

Perception is a constructive, multimodal process that is influenced by our prior experiences and knowledge. This understanding has important implications for our understanding of how we learn, remember, and make decisions. In the context of education, perception plays a crucial role in student learning and development. How students perceive information influences their understanding, memory, and engagement. The perception of students in the context of education is a crucial aspect that can significantly impact their learning experiences and outcomes. Research has shown that students' perceptions of their education can change over time, influenced by various factors such as their educational experiences, interactions with teachers, and the learning environment (Furberg, 2010).

Student's perception can contribute to their learning experiences in higher education, it can be seen from the literature discussed that students' perceptions contribute widely to their experiences in higher education. According to Tudor et al. (2010), These perceptions can shape their approaches to learning, with students who perceive their learning environment as supportive and engaging being more likely to adopt deep approaches to learning. Additionally, students' perceptions of quality teaching in higher education have been found to be influenced by factors such as the research activities of teachers, with students valuing teachers who are actively involved in research and can relate theory to practice (Bótas,

2008). Furthermore, research has demonstrated a positive relationship between students' perceptions of the learning environment and their academic performance, with students who perceive their learning environment as supportive and engaging performing better academically. Meanwhile, low-achieving students exhibited more negative perceptions of education (Ahmed et al. 2018). Another research also stated that user's perception of the certain technology can influence the adaptation and use of online learning (Mahlangu & Makwasha, 2023). These findings emphasize the need for educators to consider students' perceptions and experiences in order to create a learning environment that fosters deep learning and academic success.

Students' perception has a crucial role in their learning experiences. Those who perceive their learning environment as supportive and engaging are more likely to adopt deeper learning strategies. Research has shown that various factors, such as the teaching quality and activities that educators can influence students' perception. Notably, the perceptions have been found correlate with academic performance, where students with positive perceptions tend to perform better academically. Contrariwise, low-achieving students often exhibit more negative perceptions. Additionally, students' perceptions of technology, such as online learning platforms, can impact their willingness to adopt and utilize the platforms. Understanding and considering students 'perceptions is therefore essential for creating effective learning environments and supporting positive educational outcomes.

2.3 Canvas Application

Canvas is one of the LMSs that is useful for managing classroom activities. The focus of this research is Canvas for Instructure, a mobile version of Canvas that can be accessed via smart phones and computers. This application is available online via the Play Store for Android users and also the App Store for iOS. Canvas is a platform for online learning that encourages teachers to be creative, increasing student participation and collaboration in the learning process (Nguyen, 2023).

The features provided by Canvas such as Syllabus, where the teacher can distribute the syllabus to students. Then, the teacher can design learning and

activities via Modules. Announcements that function to share information about courses. Moreover, the feature to create online attendance is also available, and feature to create assignments, submissions which can be sent in various forms such as text, recordings, and files. Of course, there is a feature for assessing the results of assignment submissions and also a feature for viewing the history of grades. Web conferences are also available, where teachers can create online discussions or classes that can be recorded as well. With these features, canvas provides many opportunities for students, and it's also user-friendly with easy access and navigation (Khatser and Khatser, 2022). In Canvas there are several features and the following are the features and their characteristics;

1) Dashboard

Users can customize the view of the most current and important course information in this section.

2) Courses

Teachers and the students can interact asynchronously or live then exchange files, and work. This feature allowed students get information about newest announcements on group courses, curricula, exams, quizzes, grades, modules, conferences

3) Calendar

This feature used to create and display any date-related data for courses, groups, or individual activities or events.

4) Announcements

The recent announcements will appear for all the members. About the new course or any new information regarding the course.

5) Syllabus

Available for exchanging a course overview, instructions, tasks, and other crucial information regarding the course.

6) Modules

Modules consist of course information related and organized by weeks or units. Teachers can share the course information, tasks, and any related things to the course.

7) Discussions

> This feature will encourage students to participate in conversations with a whole class or community. Students may also have discussions about their struggle etc. during the class.

8) Conferences

> Users can perform virtual meetings and exchange presentations, audio and video in real time.

9) Collaboration

> Multiple people in a certain course can collaborate on the same document at once.

Canvas boasts a wider range of features, including more robust assignment options, advanced grading tools, discussion boards, and analytics. It also provides a more comprehensive course management system, allowing for greater flexibility and customization (Gryshuk, 2024). Moreover, Canvas offers more advanced discussion settings and collaboration features, including the BigBlueButton feature for online conferences and the podcast feed for audio recordings and comments. This allows for richer and more engaging student interactions. Canvas provides a greater variety of tools for content authoring, course creation, and engagement such as Flip, Dropbox, Canva, Vimeo, Accredible, and Nearpod. Canvas's superior features, functionality, and scalability make it the more compelling choice for those seeking a powerful and comprehensive learning management system. Canvas stands out as the more powerful and feature-rich option for educators seeking a robust and versatile learning management system.

The use of Canvas is also felt to be quite widespread. A survey conducted in Australia in 2020 about LMS software for examination during the pandemic, 47 institutions participated in the survey. Canvas was at 4 after Turnitin in overall tool usage to run exams (Sankey,2020). In 2018, it was reported that Canvas was used by 14 of the 25 top Bachelor's Degrees in the USA (Canvas, 2018). According to Nalyvaiko and Vakulenko (2021) Canvas is qualitatively designed to provide high-quality education for students from all around the world. In using Canvas at the

beginning of class, perhaps teachers should guide students first about using Canvas. Obstacles such as network problems and errors when logging in are also often encountered because Canvas has a high-bandwidth. (Al-Khoeri et al. 2021). Another study about student's perception towards the benefits of Canvas showed that it has beneficial features for learning activity, helps students to engage with the learning activity, and improving student independent learning. (Nurfitriani et al., 2022).

2.4 Studies of Relevant Research

Another study regarding the use of LMS to carry out English activities also showed some student responses to the use of LMS. Some feel that the LMS helps them improve their English language skills because some LMS still use English on the interface (Azzahra, 2021). It also causes students to feel motivated in using the LMS to learn English, they find the LMS is fun and find new experiences. In conclusion, Azzahra (2021) stated that the use of LMS affected EFL learning processes such as learning system quality, features and displays, perceived usefulness, English competence, and satisfaction. Another study by Al-Kathiri (2014) about Edmodo as an LMS for EFL learning stated that said LMS can facilitate the development of English language skills. It is found to be helpful in acquiring new English vocabulary (100%), sharing writing with teacher and peers (95%), improving spelling and grammar (85%), enjoying reading experiences (85.7%) and developing listening skills (76 %). In addition to several positive effects felt by teachers and students on the use of LMS in the learning process, negative effects or some difficulties were also found in the process.

Canvas LMS is a powerful tool that can be used to enhance the learning experience in the English classroom. It provides a platform for teachers to deliver instruction, manage assignments, and communicate with students. The use of Canvas in English classrooms has focused on its effectiveness in enhancing teaching and learning procedures. Moreover, Canvas is utilized to improve English teaching and learning, with a particular emphasis on students' perceptions of the teacher's usage of the Canvas application. According to Nguyen (2023), Canvas's

features have facilitated the processes of teaching and learning English, making students feel at ease, astonished, and interested despite the challenges they faced. Canvas LMS contributed in developing students' interaction, engaging with the course content and giving positive implications for ELT (Pujasari & Ruslan, 2021).