# Satisfaction and continued intention of digital textbook of language assessment and evaluation: Expectation-Confirmation Model (ECM) perspective

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#### Abstract

This study aimed to measure students' satisfaction and intention to continue utilizing the Expectation-Confirmation Model (ECM) for digital purposes. The specific objective of this study was to examine the relationship between confirmation and satisfaction using digital books. The total number of participants was 85 students from the English Education Department. The findings indicate that confirmation is favorably connected to both post-adoption expectation variables and students' satisfaction with digital books. Finally, digital text content needs to be produced to offer clear and relevant learning material, as well as to provide cohesive and successfully structured what is learned.

Keywords: Expectation-Confirmation Model (ECM), digital book

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# **INTRODUCTION**

Digital textbooks present a more engaging and accessible learning experience in higher education during the next five years. Digital textbooks can be accessible and read on a variety of electronic devices, including computers, e-readers, tablets, and smartphones (Jarf, 2023). These have significant positive effects in terms of assisting students in understanding the material and providing an engaging aspect that encourages students to be more engaged in how they learn in the classroom, which is beneficial to literacy development (Reid et al., 2016). Likewise, digital textbooks allow readers to readily access a great deal of content from any location and at any time (Sage et al., 2019). According to research works, students who grow up using digital gadgets are more driven to engage in digital reading (Kerr & Symons, 2006; Halamish & Elbaz, 2020). Because motivation plays an important role in student development (Kaban & Karadeniz, 2021), it is reasonable to say that a digital textbook could be an excellent instrument for gaining students' attention and motivating them to complete their tasks.

Despite the growing adoption and benefits of digital books, experts and educators remain skeptical of their application in second-language classes (Pardede, 2019). Moorhouse and Yan (2023) reflect the backdrop of incorporating digital resources into classroom instruction, but they differ greatly in their emphasis on the direct influence of digital technologies on students' language understanding and production. Experts are concerned that digital reading has a negative influence on readers' concentration since it takes time to read (Richter & Courage, 2017). Min Chen Tseng (2010) identified negative results of reading, such as students disliked reading from computer screens. Nevertheless, students who read digital textbooks are easily sidetracked because tablet users discuss the gadget rather than the book's content (O'Toole & Kannass, 2018) or they use hotspots for access to the Internet (Piotrowski & Krcmar, 2017). However, through the functions of digital textbooks, students transformed their interactions and accomplished what they wanted to achieve in the learning process by finding and exploring contents, reflecting on learning activities and feedback, and interacting.

According to Byun et al. (2006) and MEST (2011), the features of digital textbooks preserve the essential functionality of traditional textbooks while providing an easy-to-use interface. It includes multimedia and creates actual learning resources due to updating and data searches. Furthermore, the usage of digital textbooks allows students to actively communicate with peers, students, and teachers through synchronized and asynchronous dealing activities in digital textbooks. Finally, digital textbooks serve as comprehensive learning materials, enabling tailored and advanced learning through self-evaluation. The degree to which students receive the benefits they expect from digital books is referred to as expectation confirmation. According to studies, confirmation has a favorable impact on user satisfaction, which in turn leads to a desire to continue. (Lee, 2010)

The expectation-confirmation model (ECM), which relies on marketing's expectationconfirmation theory (ECT) and the Technology Acceptance Model (TAM) for information technology, was developed by Bhattacherjee (2001). According to Oliver (1980), ECT highlights the importance of the user experience in influencing subsequent purchase behaviors by clarifying the connections between expectation, satisfaction, dissatisfaction, attitude, and intention. Perceived usefulness in TAM is an important gauge of willingness to utilize information technology and systems (Davis, 1989). Regarding comparing ECM, ECT is primarily concerned with the degree to which users employ new technologies and systems rather than how quickly they embrace them (Bhattacherjee, 2001).

An increasing amount of students' and teachers' work in the classroom involves digital textbooks. The purpose of this paper is to gain insight into the possibilities and challenges related to satisfaction and continued intention to use digital textbooks and the conditions for the expectation-confirmation model (ECM) perspective on technology-enhanced learning. This study utilizes the ECM for assessing digital book satisfaction and desire to continue, as well as measures of digital book experience according to the four post-adoption expectation factors: learning process (flexibility and motivation), lecturer interaction (lecturer expertise support), peer interaction (knowledge communication and relational and tutor communication), and course design (course structure). In accordance with ECM, this study accompanied a framework developed by Wing and Shi (2014) that examines the process in which the confirmation of expectation improves the four factors of post-adoption expectation and then how the two factors influence digital book satisfaction and continuance intention. The expectation of digital books post-adoption is based on Paechter et al.'s (2010) original research into students' digital book experiences.

#### **METHOD**

This was a survey study that used validated variables from Lee's (2010) work to assess confirmation, satisfaction, and intention to continue. Regardless of the benefits and drawbacks of digital textbooks, a preliminary study was undertaken at the English Education Department in Riau province to be utilized for teaching language assessment and evaluation subjects. The total participants were 85 students.

The survey revealed that the students shifted their reading habits towards reading learning resources via digital books. The digital book contents and design were created to stay up with technology changes and modern higher education. It additionally boosts student engagement, pleasure, participation, and satisfaction with learning, as well as their technical knowledge (Bikowski & Casal, 2018). From the viewpoint of the lecturer on the implementation of digital books in teaching language assessment and evaluation subjects, it promotes and fosters students' understanding of technology as well as instructional activities and allows students to be active and motivated. The effective use of digital books for learning purposes rests on the engagement of an educational model that responds to the needs of learners (Lethumanan & Tarmizi, 2011). This study aimed to measure students' satisfaction and intention to continue utilizing ECM for digital purposes. The specific objective of this study was to examine the relationship between confirmation and satisfaction using digital books. The data was analyzed using Structural Equation Modelling (SEM) software and

Partial Least Squares (PLS) to evaluate the measurement and structural model. PLS is appropriate for this investigation since it has minimum constraints on sample size and normal distribution (Chin, 1998).

## FINDING AND DISCUSSION

Digital textbooks used by lecturers are beyond simply textbooks that assist in the learning process; they additionally serve as publications that may be tested for usefulness by students (users). The Expectation-Confirmation Model (ECM) can be used to assess the amount of practicability of digital-based learning media. Expectation-Confirmation Model (ECM) is a model for Viewing Satisfaction and Continuance Intention. The expectation confirmation model (ECM) is a framework developed by Bhattacherjee (2001) that is employed to measure and analyze users' ongoing intentions toward new technologies or new systems. According to the ECM, users who have a higher level of perception of their post-adoption expectations will demonstrate a higher level of satisfaction and intention to continue (Bhattacherjee, 2001).

## Figure 1



Research Model from Wing S. Chow and Si Shi

The figure shows the result of respective students' perceptions where P<0.05. The student's perspective of the learning process (H1= 0.26), lecturer interaction (H2 = 0.05), peer interaction (H3 = 0.01), and course design (H4 = 0.13) have each a favorable impact on digital book satisfaction. Respective students' perception of the learning process (H5 = 0.25), lecturer interaction (H6 = 0.05), peer interaction (H7=0.07), and course design (H8= 0.19) may have a beneficial influence on the use of digital books continuously intention.

The finding of this research indicated that students' confirmation of expectation has implications for foreseeing their digital book post-adoption expectation with respect to the learning process, lecturer interaction, peer interaction, and course design. Confirmation also directly affects how satisfied students are with digital books. Therefore, attempts need to be implemented to teach students how to successfully use the digital book as a way to improve their confirmation of expectations and raise their level of satisfaction.

Among the four post-adoption expectation criteria, students' perceptions of digital book applications had the greatest impact on satisfaction and intention to continue. Consequently, digital instructional materials need to offer enough flexibility in the learning material and allow students to pinpoint their learning objectives. The only additional variable influencing satisfaction and the decision to continue is course design. This research suggests that digital books should be designed to give clear and appropriate learning material and to produce cohesive and effectively structured learning outcomes. Improvements are required to encourage active learning through the utilization of digital books to facilitate interaction between students and lecturers.

# CONCLUSION

The aim of this study was to look into the relationship between confirmation and satisfaction when utilizing a digital book. It optimized the ECM by assessing students' post-adoption expectations of digital books using four quality assurance elements (learning process, instructor engagement, peer interaction, and course design). The findings indicate that confirmation is favorably connected to both post-adoption expectation variables and students' satisfaction with digital books. Finally, digital text content needs to be produced to offer clear and relevant learning material, as well as to provide cohesive and successfully structured what is learned.

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