Examining the UTAUT Framework in Understanding the Perception-Intention Dynamics of Accounting Information Systems in the Age of Industry 4.0

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Abstract

Purposes: This research investigates the relationship between students' perceptions of a digital accounting laboratory and their intention to utilize it. This research is conducted in response to the challenges and opportunities posed by the Fourth Industrial Revolution and the Digital Economy.

Methods: The study adopts the Unified Theory of Acceptance and Use of Technology (UTAUT) to understand and explain the factors influencing students' intention to use the Digital Accounting Laboratory. Data were collected from students in the Department of Accounting at the Faculty of Economics and analyzed using SEM-PLS statistical method.

Findings: The research findings indicate that students' intention to utilize the Digital Accounting Laboratory for project-based learning, to enhance their competency in digital accounting during the era of the Industrial Revolution 4.0 and the Digital Economy is significantly high. The intention is positively influenced by performance expectations, effort expectancy, social influences, and facilitating conditions. Furthermore, the use of Digital Accounting Laboratories contributes to improving students' competence in digital accounting, aligning with the needs of business entities in the Industrial Revolution 4.0 era and the Digital Economy.

Novelty: This research contributes to the field by providing insights into developing and utilizing digital technologies in accounting education. Establishing a Digital Accounting Laboratory and its positive impact on students' intention and competence in digital accounting offer new perspectives for adapting to the challenges and opportunities of the Industrial Revolution 4.0 and the Digital Economy.

Keywords: *Digital Accounting Laboratory, Industrial Revolution 4.0, Digital Economy, UTAUT, Accounting Education*

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INTRODUCTION

The Industrial Revolution 4.0, which emerged around the early 2000s, was supported by information, communication, and interconnected networking (internet) technology, where information can be accessed by anyone, anytime and anywhere in various parts of the world, has brought fundamental changes to global civilization in all aspects of community and nation

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life throughout the world. The Industrial Revolution 4.0 is a comprehensive transformation of all aspects of the global industrial environment supported by information, communication, and internet technology, which emphasizes the speed of information available throughout its network of entities which are always connected and share information in real-time without being limited by space and time (Harahap & Rafika, 2020)

An invitation to the world of business and industry as well as educational institutions, significantly higher Education, to prepare themselves to face the challenges and opportunities of the Industrial Revolution 4.0, marked by the rise of digital economic growth, which increasingly resonated in the late 2010s. The digital economy is a concept often used to explain the global impact of the Industrial Revolution 4.0 on economic digitalization because of the rapid development of information and communication technology supported by the Internet (Ma & Zhu, 2022; Pan et al., 2022; Purnomo et al., 2021). In Indonesia, the impact of the Industrial Revolution 4.0 has encouraged more businesses and industries to apply internet-based information and communication technology digitally in developing their product line innovations and marketing to win the competition in the global market. The development of the Digital Economy increases the flow of production, consumption, and distribution to grow more rapidly; economic growth in the transportation and warehousing sector and the information and communication sector increases productivity and GDP (Aprilia, 2021).

The presence of the Industrial Revolution 4.0 in Indonesia, which triggered increasingly massive digital economic growth, requires higher education in accounting and the accounting profession to adapt to changes in the increasingly fast and dynamic environment of the digitalization of the economy. The solution for Higher Education in the Accounting Department of the Faculty of Economics is to organize a digital accounting project-based learning that suits the needs of graduates in meeting the job market in the business and industrial world in the Industrial Revolution 4.0 era and the Digital Economy.

As explained by Esmeray & Esmeray (2019) that the digital economy is characterized by the active introduction and use of digital technologies for storage, processing, and transmission of information in all activities using the latest digital services and products, including: 1) E-Commerce/E-Retailing, retail activities or sales of goods and services carried out online using the internet; 2) Digital-marketing, marketing activities or promotion of a product or brand using digital media or the internet; 3) Fintech (financial technology), technological innovation and digitalization of financial services; and 4) Blockchain, a permanent digital transaction storage system and advanced database mechanism that enables transparent sharing of information in business networks. Revolutionary changes were required to develop accounting in the context of digital transformations in addressing the phenomenon of the rapidly expanding digitalization of the economy. More than merely utilizing computerization and accounting software was required; adaptation and transformation were necessary to embrace information technology-based accounting. This entailed leveraging communication technologies such as the internet, supported by big data, cloud computing, AI, and IoT, collectively known as digital accounting (Agostino et al., 2022; Belfo & Trigo, 2013)

In the era of the Digital Economy and the pursuit of an information society, the improvement and utilization of information have become crucial for enhancing people's quality of life, facilitating social change, and driving economic development. In this context, the accounting information system reflects the level of economic and technological advancement and plays a vital role in the management of business entities, both at the individual and national levels. The accounting information system expresses the economic and technological development level and business management of individual and national business entities. The presence of an information society and the widespread adoption of information technology, communications, and the internet necessitates a shift from manual accounting to digital accounting. This transformation is particularly crucial in recording transactions and processing them into accounting information or financial reports that cater to the needs of accounting stakeholders in the era of the Fourth

Industrial Revolution and the Digital Economy.

The definition of digital accounting refers to the creation, representation, and transfer of financial information in electronic or digital formats. All accounting transactions are carried out digitally with the support of information, communication, and internet technology, as well as applying automation, big data, cloud computing, cloud accounting, artificial intelligence (AI), and Internet of Things (IoT) technologies. So that data is easy to enter, access, and retrieve using an integrated system and real-time reporting and can be developed on an ongoing basis. Allows recording of financial transactions, data entry, and account reconciliation to be done automatically, more efficiently, accurately, and in real time. Large amounts of transaction data and information can be stored using big data technology, which can be accessed from anywhere and at any time if it is connected to the internet network. Making financial reports easier, faster, and more accountable is supported by cloud computing technology. The financial report analysis is more accessible, faster, relevant, and more reliable as a basis for decision making because AI Business activities support it can be controlled, given recommendations and solutions for management and overall business development that are better and more valuable because they are supported by IoT (Delgosha et al., 2022; Palmaccio et al., 2021).

The results of research by Shahroom & Hussin (2018), which examined the link between the Industrial Revolution 4.0 and Education, stated that the Industrial Revolution 4.0, where digital, physical frameworks and artificial intelligence made the human-machine interface more universal, had changed the landscape of educational innovation. Educational innovation must prepare graduates to face future life and work in the challenges of the Industrial Revolution 4.0 era, where more intelligent robots will replace humans in certain activity divisions. Educational innovation must be able to deliver students to become intelligent, global, and virtual future learners. Have competence in the fields of information technology, communication, online networking, Internet of Things (IoT), Artificial Intelligence (AI), Virtual Reality (VR), and Augmented Reality (AR) (Bonfield et al., 2020; Lorenzo et al., 2021). Therefore, educational innovation of the Industrial Revolution 4.0 era requires an instructional design to be carried out through computerized and digitalized teaching in smart classrooms, such as computer laboratories or digital laboratories.

The study examines the impact of student's perception of a digital accounting laboratory on their intention to use it. The study assesses how students perceive the digital accounting laboratory and whether their perception influences their intention to utilize it. Implementing digital accounting project-based learning in the Accounting Department at the Faculty of Economics should be supported by an adequate Digital Accounting Laboratory that aligns with students' perceptions and needs. This initiative aims to enhance students' intention to use the laboratory, thereby improving their competence in digital accounting. By investigating the relationship between students' perception and intention to use the laboratory, the study seeks to provide insights into the development and improvement of digital accounting laboratories to effectively meet the needs and expectations of students in the modern era of the Fourth Industrial Revolution and the Digital Economy.

The leading theory used to understand, explain, and provide answers to the problems raised in this research is the Unified Theory of Acceptance and Use of Technology/UTAUT (Andrews et al., 2021). UTAUT is one of the latest technology acceptance model theories that combine theories of technology acceptance developed based on theories of user behavior, including 1) Theory of Reasoned Action/TRA (Ajzen, 2005), which explains that a person's behavior is determined by their intention to perform the behavior and that this intention is, in turn, a function of their attitude toward the behavior and subjective norms. 2) Theory of Planned Behavior /TPB (Ajzen, 2005), explains that personal attitudes and personality traits, social norms and values, and the environmental conditions surrounding a person are factors that can be used to predict human behavior. Furthermore, 3) The Technology Acceptance Model/TAM (Marangunić & Granić, 2015), posits that two factors determine whether a computer system will be accepted by its potential users' perceived usefulness and perceived ease of use.
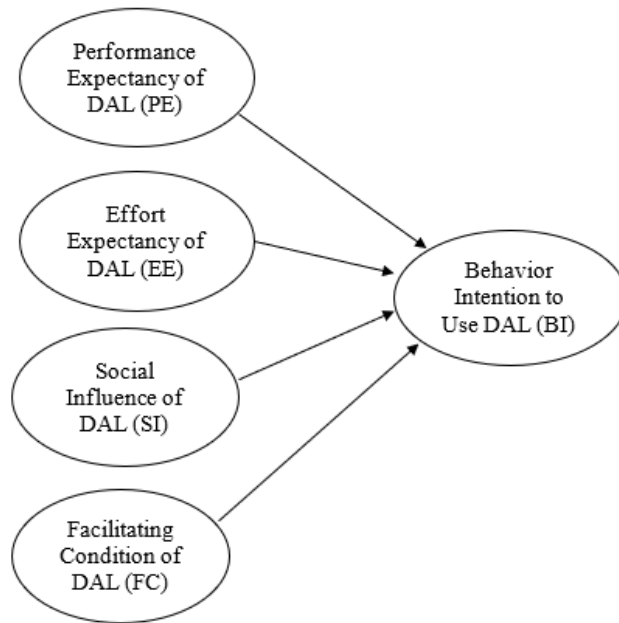
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Figure 1. Research Model

Based on previous research which examined the weaknesses of TAM as a theory of technology acceptance (Benbasat & Barki, 2007), motivated Venkatesh et al. (2003) developed the UTAUT Theory as a comprehensive synthesis of previous technology acceptance research. The UTAUT theory has four constructs that influence an individual's behavioral intention to use technology: performance expectations, effort expectations, social influences, and facilitating conditions. Since the original UTAUT theory was published, it has been applied to several studies on technology acceptance and use in organizational and non-organizational settings in the context of acceptance and use of new technology and new user populations (Ayaz & Yanartaş, 2020). The application of UTAUT theory in various studies to understand individual Behavior in accepting and using technology, provides a broad understanding of the advantages of UTAUT theory compared to previous theories of acceptance and use of technology.

The fundamental reason for research on developing a digital accounting laboratory at the Accounting Department of the Faculty of Economics uses the student user-based UTAUT theory. Previous studies that tested technology acceptance and adoption using the UTAUT theory proved superior to previous behavior and technology acceptance theories. The research results (Venkatesh et al., 2012) state that the theory of UTAUT being able to explain the behavior of individual consumers receiving and using information technology is more than 70% user variant. The research model is proposed as presented in figure one.

Hypotheses

Performance Expectancy

The performance expectancy construct in UTAUT is one factor influencing the intention to use technology. Performance expectancy refers to an individual's perception of how the use of technology will enhance their performance or provide expected benefits (Ayaz & Yanartaş, 2020; Khechine et al., 2016). In this context, the higher the perceived performance or benefits by accounting students towards the Digital Accounting Laboratory (DAL), the higher their behavioral intention to use DAL. It means that if students believe that using DAL will improve their abilities in digital accounting or provide expected benefits, they will be more likely to have the intention to use DAL. In this context, performance expectancy refers to students' expectations of enhancing their competence and quality in digital accounting through DAL.

For example, students may expect that using DAL will help them better understand concepts

of digital accounting, improve their data analysis skills, or prepare them for career challenges in the digital era. If they believe that using DAL will provide such benefits, they will likely have a stronger intention to use DAL for learning and skill development in the field of digital accounting. Therefore, hypothesis H_1 states that the higher the performance expectancy students perceive towards DAL, the higher their behavioral intention to use DAL in this study's context.

H_1: Performance expectancy of DAL has a significant positive effect on behavior intention to use DAL.

Effort Expectancy

Based on the effort expectancy construct of UTAUT, which is another factor that influences the intention to use technology, effort expectancy refers to an individual's perception of how easy or difficult it is to use a particular technology (Ali et al., 2022; Tewari et al., 2023). In this context, the higher the perceived ease of use by accounting students towards the Digital Accounting Laboratory (DAL), the higher their behavioral intention to use DAL. It means that if students perceive that using DAL does not require significant effort or is easy to use, they are more likely to have the intention to use DAL. Effort expectancy refers to student's expectations of how easily they can use DAL without significant effort. For example, students may expect that using DAL has an intuitive interface, clear instructions, or guides that help them easily access and utilize the features in the laboratory. If they believe that using DAL meets these expectations of ease of use, they are more likely to have a stronger intention to use DAL in the context of learning and skill development in digital accounting. Therefore, hypothesis H_2 states that the higher the perceived effort expectancy by students towards DAL, the higher their behavioral intention to use DAL in this study's context.

H_2: Effort expectancy of DAL has a significant positive effect on the behavior intention to use DAL.

Social Influence

Based on the social influence construct of UTAUT, which suggests that individuals' behavioral intentions to use technology are influenced by the social factors surrounding them (Gharrah & Aljaafreh, 2021; Raza et al., 2021). In this context, social Influence refers to the impact of social interactions, opinions, and recommendations from peers, instructors, or others on accounting students' intention to use the Digital Accounting Laboratory (DAL). If students perceive positive social Influence regarding the use of DAL, such as their peers or instructors endorsing its benefits and importance in digital accounting, they are more likely to develop a stronger intention to use DAL. For example, if students observe their classmates successfully using DAL and receive positive instructor feedback, it can create a social norm or expectation that motivates them to adopt and use DAL. Additionally, if students perceive that using DAL is encouraged and valued by their social environment, they may feel a social pressure to conform and utilize the laboratory. Therefore, hypothesis H_3 suggests that the greater the perceived social Influence surrounding DAL, the higher the behavioral intention of accounting students to use DAL in the context of this study.

H_3: Social influence of DAL has a significant positive effect on behavior intention to use DAL.

Facilitating Condition

Based on the facilitating conditions construct of UTAUT suggests that the availability of resources, support, and infrastructure necessary for technology use can influence individuals' behavioral intention to adopt and utilize the technology (Putu et al., 2019). In this context, facilitating conditions refer to the extent to which the necessary conditions and resources for using the Digital Accounting Laboratory (DAL) are perceived to be in place. It includes factors such as computer access, software, internet connectivity, technical support, and training provided

to accounting students. If accounting students perceive that the facilitating conditions for using DAL are favorable and supportive, it can enhance their intention to use DAL. For example, if the Digital Accounting Laboratory is well-equipped with the necessary hardware and software, readily available technical support is provided, and adequate training is offered to students, it creates a conducive environment that facilitates their use of DAL. Furthermore, if students believe they have the necessary skills, knowledge, and resources to use DAL in their accounting studies effectively, it can positively influence their intention to adopt and utilize the laboratory. Therefore, hypothesis H_4 suggests that the greater the perceived facilitating conditions of DAL, the higher the behavioral intention of accounting students to use DAL in the context of this study.

H_4: Facilitating the Condition of DAL significantly positively affects behavior intention to use DAL.

METHODS

The research entitled "Examining the UTAUT Framework in Understanding the Perception-Intention Dynamics of Accounting Information Systems in the Age of Industry 4.0" used a quantitative research approach. The research sample was selected purposively from the 3rd and 5th-semester student respondents based on the consideration that they had taken accounting practice courses, which made it possible to use accounting laboratory facilities in their lectures. After distributing 300 questionnaires to respondents, 242 questionnaires were returned (representing an 80.66% response rate). The collected number of respondents exceeds the minimum sample

Variables	Definitions	Indicators
Performance Expectancy of DAL	Individual's perception of the extent to which the use of DAL will enhance their performance or provide expected benefits	The extent to which accounting students believe that using DAL will improve their skills in digital accounting or provide expected benefits
Effort Expectancy of DAL	Individual's perception of the extent to which the use of DAL is considered easy or difficult	The extent to which accounting students believe that using DAL requires significant effort or otherwise
Social influence of DAL	Social influence or pressure from individuals or groups on the intention to use DAL	The extent to which accounting students perceive social influence from their peers or other parties in using DAL
Facilitating condition of DAL	Conditions or resources that facilitate the use of DAL	The extent to which accounting students perceive the availability and accessibility of conditions that facilitate the use of DAL
Behavior intention to use DAL	Individual's intention or desire to use DAL	The extent to which accounting students have a firm intention or desire to use DAL in learning and developing digital accounting skills actively

Table 1. Results of Descriptive Analysis of Research Variables

No.	Variable	Average	Category
1.	Performance Expectancy DAL	3.86477629	High
2.	Effort Expectancy DAL	3.529220779	High
3.	Social Influence DAL	3.778696051	High
4.	Facilitating Condition DAL	3.638241923	High
5.	Behavior Intention DAL	3.603822314	High

size recommended for Structural Equation Modeling (SEM) (Zuhdi et al., 2016).

Furthermore, based on the UTAUT theory (Venkatesh et al., 2003), the variables observed in this research include: The independent variables consisting of performance expectancy of the digital accounting laboratory (DAL), performance expectancy of DAL, Social Influence of DAL, facilitating conditions of DAL, and the dependent variable is a behavioral intention to use DAL (Jogiyanto, 2007).

Data analysis in this research used descriptive statistical analysis and inferential statistical analysis using the Structure Equation Modeling (SEM) WARP-PLS.

RESULTS AND DISCUSSION

Variable Description

The variables observed in this research include Performance Expectancy Digital Accounting Library (DAL), Effort Expectancy DAL, Social Influence DAL, Facilitating Condition DAL, and Behavioral Intention to Use DAL. The results of the descriptive analysis of the research variables are presented in Table one as follows.

Based on the results of the description of the research variables presented in table one above, the following research results were found: 1) The average performance expectancy of DAL is 3.86477629 in the high category. It shows that student respondents from the Accounting Department of the Faculty of Economics believe that the use of the Digital Accounting Laboratory will help them improve their accounting work performance in the era of the industrial revolution 4.0 and the digital economy; 2) The average effort expectancy of DAL is 3.86477629 in the high category. It shows that student respondents from the Accounting Department of the Faculty of Economics believe that the use of the Digital Accounting Laboratory helps them improve their ease in carrying out accounting work in the era of the Industrial Revolution 4.0 and the Digital Economy; 3) The average social influence of DAL is 3.778696051 in the high category. It shows that student respondents from the Department of Accounting at the Faculty of Economics believe that the existence of the Digital Accounting Laboratory has social support as a new system that determines success in carrying out accounting work in the Industrial Revolution 4.0 era and the Digital Economy; 3) The average facilitating conditions of DAL is 3.603822314 in the high category. It shows that student respondents from the Department of Accounting at the Faculty of Economics believe that the existence of a Digital Accounting Laboratory is a facility to support success in carrying out accounting work in the Industrial Revolution 4.0 era and the Digital Economy; 4) The average behavioral intention of DAL is 3.603822314 in the high category. The intention of student respondents from the Accounting Department at the Faculty of Economics to use the Digital Accounting Laboratory to support success in accounting work in the era of the Industrial Revolution 4.0 and the Digital Economy is relatively high.

The fit model, test, and quality index are used to test the feasibility of the model so that the hypothesis is feasible to be interpreted. The results of the fit model and quality index testing are presented in Table two as follows:

Based on the results of testing the fit model and quality index presented in Table 2 below, it is stated that the model is fit for hypothesis testing.

Table 2. Results of Testing the Fit Model and Quality Index

No.	Index	Cut of Value	Score	Remarks
1.	Average path coefficient (APC)	P<0.05	0.226, P<0.001	Good
2.	Average R-squared (ARS)	P<0.05	0.702, P<0.001	Good
3.	Average adjusted R-squared (AARS)	P<0.05	0.697, P<0.001	Good
4.	Average block VIF (AVIF)	P<0.05	4.108	Good
5.	Average full collinearity VIF (AFVIF)	acceptable if <= 5, ideally <= 3.3	3.904	Good
6.	Tenenhaus GoF (GoF)	acceptable if <= 5, ideally <= 3.3	0.652	Ideal
7.	Simpson's paradox ratio (SPR)	acceptable if >= 0.7,ideally = 1	1.000	Ideal
8.	R-squared contribution ratio (RSCR)	acceptable if >= 0.9,ideally = 1	1.000	Ideal
9.	Statistical suppression ratio (SSR)	acceptable if >= 0.7	1.000	Ideal
10.	Nonlinear bivariate causality direction ratio (NLBCDR)	acceptable if >= 0.7	1.000	Ideal

Hypothesis Testing

The results of the SEM WARP-PLS inferential statistical analysis for hypothesis testing obtained a path diagram as presented in Figure 2 as follows:

Based on the SEM WARP-PLS path diagram in Figure 2, the results of hypothesis testing are obtained as presented in Table 3 as follows:

This research found empirical support that the four theoretical constructs of UTAUT (Venkatesh et al., 2003) including performance expectancy, effort expectancy, social Influence, and facilitating conditions, can explain and provide answers empirically that significantly affect
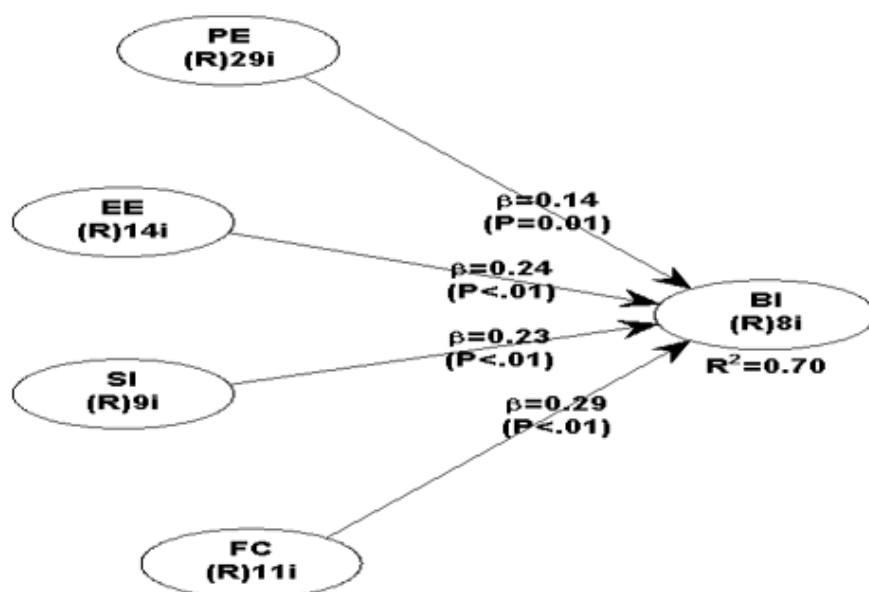

Figure 2. Path diagram of the SEM WARP-PLS Hypothesis Testing

Table 3. Hypothesis Testing

	Hypothesis	β	P-value	Criteria
H₁	Performance Expectancy (PE) -> Behavior Intention (BI)	0.145	0.011	Accepted
H₂	Effort Expectancy (EE) -> Behavior Intention (BI)	0.242	<0.001	Accepted
H₃	Social Influence (SI) -> Behavior Intention (BI)	0.226	<0.001	Accepted
H₄	Facilitating Condition (FC) -> Behavior Intention (BI)	0.292	<0.001	Accepted

behavioral intention. Thus, the four hypotheses proposed in this research are accepted: H_1: Performance expectancy of DAL (Digital Accounting Library) has a significant positive effect on behavior intention to use DAL H_2: The effort expectancy of DAL has a significant positive effect on the behavior intention to use DAL H_3: Social Influence of DAL has a significant positive effect on behavior intention to use DAL And H_4: Facilitating condition of DAL has a significant positive effect on behavior intention to use DAL.

Discussions

Performance expectancy of DAL has a significant positive effect on behavior intention to use DAL

For H_1, the beta coefficient ($β$) is 0.145 with a p-value of 0.011. Since the p-value is less than the significance level (commonly set at 0.05), the null hypothesis is rejected, and the alternative hypothesis is accepted. Therefore, it can be concluded that Performance Expectancy has a significant positive effect on Behavior Intention. In the context of the Unified Theory of Acceptance and Use of Technology (UTAUT), hypothesis H_1 states that Performance Expectancy (PE) has a significant positive effect on Behavior Intention (BI) in using DAL. Performance Expectancy refers to an individual's perception of how much technology (DAL) will enhance their performance or provide expected benefits.

In the context of accounting students, the Performance Expectancy of DAL can be interpreted as students' perception of how much the use of DAL will improve their abilities in the field of digital accounting or provide expected benefits. For example, students may believe that using DAL will help them better understand digital accounting concepts or enhance their data analysis skills in an accounting context. Fundamentally, the UTAUT theory suggests that the higher the perceived Performance Expectancy of technology by users, the higher their intention to use it. In this case, if accounting students believe that using DAL will significantly benefit their development of digital accounting skills, they will have a stronger intention to use DAL. Therefore, the finding that the p-value is less than the significance level (0.011 < 0.05) indicates a significant positive effect between Performance Expectancy (PE) and Behavior Intention (BI) in the context of DAL usage among accounting students, aligning with the assumptions and predictions of the UTAUT theory.

Effort expectancy of DAL has a significant positive effect on the behavior intention to use DAL

For H_2, the beta coefficient ($β$) is 0.242 with a p-value less than 0.001. The p-value is less than the significance level indicating that the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, it can be concluded that Effort Expectancy has a significant positive effect on Behavior Intention. In the context of the Unified Theory of Acceptance and Use of Technology (UTAUT), hypothesis H_2 states that Effort Expectancy (EE) has a significant positive effect on Behavior Intention (BI) in using DAL. Effort Expectancy refers to an individual's perception of how easy or difficult it is to use DAL.

In the context of accounting students, the Effort Expectancy of DAL can be interpreted as students' perception of how easy or difficult it is to use DAL. For example, students may perceive DAL as being easy to use, requiring minimal effort, or having an intuitive interface and

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clear instructions. According to the UTAUT theory, the higher the perceived Effort Expectancy of technology by users, the higher their intention to use it. In this case, if accounting students perceive DAL as easy to use and not requiring significant effort, they are more likely to have a stronger intention to use DAL. Therefore, the finding that the p-value is less than the significance level (<0.001) indicates a significant positive effect between Effort Expectancy (EE) and Behavior Intention (BI) in the context of DAL usage among accounting students, aligning with the assumptions and predictions of the UTAUT theory.

Social influence of DAL has a significant positive effect on behavior intention to use DAL

For H_3, the beta coefficient (β) is 0.226 with a p-value less than 0.001. Since the p-value is below the significance level, the null hypothesis is rejected, and the alternative hypothesis is accepted. Thus, it can be concluded that Social Influence has a significant positive effect on Behavior Intention. In the context of the Unified Theory of Acceptance and Use of Technology (UTAUT), hypothesis H_3 states that Social Influence (SI) has a significant positive effect on Behavior Intention (BI) in using DAL. Social Influence refers to the Influence or pressure individuals or groups exert on the intention to use DAL.

In the context of accounting students, the Social Influence of DAL can be interpreted as the influence students perceive from their peers or other parties regarding using DAL. For example, students may feel motivated to use DAL because many of their classmates are also using it, or they may perceive an expectation from their professors or faculty staff to use DAL. According to the UTAUT theory, social Influence plays a significant role in shaping user's intention to use technology. If accounting students perceive a robust social influence regarding using DAL, it can positively impact their behavioral intention to use DAL. Therefore, the finding that the p-value is less than the significance level (<0.001) indicates a significant positive effect between Social Influence (SI) and Behavior Intention (BI) in the context of DAL usage among accounting students, aligning with the assumptions and predictions of the UTAUT theory.

Facilitating Condition of DAL has a significant positive effect on behavior intention to use DAL

For H_4, the beta coefficient (β) is 0.292 with a p-value less than 0.001. As the p-value is lower than the significance level, the null hypothesis is rejected, and the alternative hypothesis is accepted. Consequently, it can be concluded that Facilitating Conditions significantly positively affect Behavior Intention. In the context of the Unified Theory of Acceptance and Use of Technology (UTAUT), hypothesis H_4 states that Facilitating Conditions (FC) have a significant positive effect on Behavior Intention (BI) in using DAL. Facilitating Conditions refer to the availability of resources and conditions that facilitate the use of DAL.

In the context of accounting students, Facilitating Conditions of DAL can be interpreted as the perceived availability and accessibility of conditions that support the use of DAL. For example, students may perceive ease in obtaining technical support for using DAL or find that the necessary facilities and devices for DAL are well-provided in the faculty. According to the UTAUT theory, facilitating conditions are crucial in shaping users' behavior and intention to adopt and use technology. If accounting students perceive a favorable environment with adequate resources and support for using DAL, it can positively influence their behavior and intention to use DAL. Therefore, the finding that the p-value is less than the significance level (<0.001) indicates a significant positive effect between Facilitating Conditions (FC) and Behavior Intention (BI) in the context of DAL usage among accounting students, aligning with the assumptions and predictions of the UTAUT theory.

The results of the research state that the behavior intention of students of the Faculty of Economics to use DAL to support success in carrying out accounting work in the era of the Industrial Revolution 4.0 and the Digital Economy is positively and significantly determined by performance expectancy, effort expectancy, social Influence and facilitating condition of DAL. The performance expectancy of DAL is that student respondents believe that using the Digital

Accounting Laboratory will help them improve their accounting work performance in the era of the industrial revolution 4.0 and the digital economy. The effort expectancy of DAL is that student respondents believe that using the Digital Accounting Laboratory helps them improve their ease in carrying out accounting work in the era of the Industrial Revolution 4.0 and the Digital Economy. The Social Influence of DAL is that student respondents believe that the existence of the Digital Accounting Laboratory has social support as a new system that determines success in carrying out accounting work in the Industrial Revolution 4.0 era and the Digital Economy. Facilitating conditions of DAL is that student respondents believe that the existence of a Digital Accounting Laboratory is a facility to support success and improve their performance in accounting work in the era of Industrial Revolution 4.0 and the Digital Economy.

Based on the results of this research, it can be stated that the existence of the Digital Accounting Laboratory as a means of practicum activities for accounting students in the Accounting Department, Faculty of Economics, is essential to support the improvement of their quality and competence in the field of digital accounting in facing the challenges of job opportunities and the accounting profession in the Industrial Revolution 4.0 era and the Digital Economy. This study's results align with the recommendations of Shahroom & Hussin (2018), which examined the link between the Industrial Revolution 4.0 and Education and stated that the Industrial Revolution 4.0 had changed the landscape of educational innovation. Educational innovation must prepare graduates to face the future of life and work in the challenges of the Industrial Revolution 4.0 era. Furthermore, Alamiri (2022) investigates the role of UTAUT for understanding the effects of utilizing the virtual classrooms for gifted students. Stating that the UTAUT brought useful insight on how students exhibit appropriate behavior, expectations, and engagement in the virtual classroom.

Based on the findings of the research and the preceding discussion, it is recommended that accounting practice lectures at the Accounting Department of the Faculty of Economics be supported by adequate Digital Accounting Laboratory facilities according to user needs, especially for students. This recommendation was put forward based on the consideration that the Digital Accounting Laboratory was built based on information, communication, and internet technology and can be applied to the use of big data, cloud computing, AI, and IoT so that it is possible: 1) Recording of financial transactions both data entry and account reconciliation can be done automatically, making it more efficient, accurate and real-time because it is supported by internet-based information and communication technology. 2) Transaction data, financial information, and accounting information in a huge volume, velocity, and variety can be stored and accessed from anywhere and at any time as long as it is connected to the internet network because big data support it. 3) Preparing financial reports is more accountable, valid, accessible, and fast because it is supported by cloud computing. 4) Analysis of financial reports can be done more efficiently and quickly and is more relevant and reliable as a basis for decision-making because it is supported by artificial intelligence. 5) The activities of business entities can be controlled, controlled, given recommendations and solutions in terms of better and more valuable overall business management and development because the Internet of Things supports them.

The development of a Digital Accounting Laboratory for the Accounting Department, Faculty of Economics at every university requires full support from stakeholders, especially from higher education leadership, faculty leaders, and heads of accounting departments, as well as accounting lecturers, especially those who teach accounting practice courses. Therefore, future research is needed to develop accounting laboratories based on lecturer users and support from leaders, especially from faculty leaders and heads of accounting departments.

CONCLUSIONS

Based on the discussions, the intention of accounting students to use the DAL to support success in accounting work during the Fourth Industrial Revolution and the Digital Economy is relatively high. It indicates a strong interest in adopting technology to enhance skills and

performance in accounting. The research findings indicate that factors such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions significantly impact students' intention to use the DAL. Perceptions of the expected benefits, the difficulty level in using the technology, Social Influence, and facilitating conditions determine the intention to use DAL. This study also emphasizes the importance of having a DAL in the accounting department at the Faculty of Economics to support project-based accounting practicum learning. The DAL is considered a necessary tool to enhance the quality and competence of graduates in digital accounting, aligned with the demands of the business world and industry in the Fourth Industrial Revolution and the Digital Economy.

Limitations

Despite providing valuable insights, the data collection method used in this study may have specific limitations, such as relying on self-report surveys that are prone to perceptual biases or reporting errors. Future researchers may consider using more objective data collection methods, such as direct observation or in-depth interviews.

Recommendations

Based on the findings of this study, several practical recommendations can be made. First, it is essential to focus on developing and enhancing facilities in the Digital Accounting Laboratory. It includes updating hardware and software, providing technical support, and ensuring adequate facilities and supporting devices are available for students. Second, providing training and Education for students is crucial. It includes comprehensive training on the use of devices and applications in the laboratory, as well as a deep understanding of the concepts and practices of digital accounting. Lastly, collaboration with industry is recommended to ensure the laboratory's relevance and usefulness. It can involve partnerships, internships, or guest lectures from digital accounting professionals, enabling students to apply their knowledge and skills to real-world scenarios. By implementing these practical recommendations, the effectiveness and impact of the Digital Accounting Laboratory can be maximized.

To further advance knowledge in the field, expanding the scope of research concerning students' understanding and acceptance of the Digital Accounting Laboratory within the Fourth Industrial Revolution and the Digital Economy is highly recommended. Future studies should delve into various aspects, including exploring the factors that influence students' adoption of technology, examining the effects of utilizing the Digital Accounting Laboratory on academic performance and career preparation and evaluating the effectiveness of programs and activities associated with the laboratory.

Additionally, it is advisable to conduct similar studies in diverse contexts and with different populations to enhance the understanding of the identified factors. This approach will facilitate a more comprehensive understanding of the Influence of Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions on Behavioral Intention regarding the use of technology in accounting. Such research endeavors will contribute to the overall knowledge base and further inform the development and implementation of digital accounting practices in the era of the Fourth Industrial Revolution and the Digital Economy.

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