Online Learning Readiness, Accounting Automation and Learning Process

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Abstract

This research was conducted to evaluate the increase in intention to contribute to the automation of accounting in order to increase digital literacy and formulate virtual learning patterns of computerized accounting practice. There are obstacles in online learning in the form of the effectiveness of learning outcomes, especially on practical materials to improve skills or proficiency in mastering computerized accounting, accompanied by a gap in understanding in the technical field of design and automatic transaction processing with programming language instructions for accounting application design. Experimental designed through the stages of practicing on cloud-based accounting followed by a diffusion stage of practice through spreadsheet applications with automation program instructions as a mediator for increasing digital literacy. Analyze with PLS-SEM to evaluate between online learning readiness, computerized accounting and digital automation with learning process. The novelty is to focus on the technical learning of accounting computerized practices completed by automation processing with algorithms and programming scripts to enhance digital literacy. The results indicate a significant increase in the intention to improve digital literacy and contribute to the development of accounting automation & digitization as well as understanding of program language and application design. There is an increasing intention to contribute to the development of automation and digitalization of accounting by the process of repeated exercise (diffusion) through a certain pattern that indirectly increasing their digital literacy.

Keywords: *application design; automation and digitalization of accounting; digital literacy; diffusion stage; online learning readiness*

INTRODUCTION

Bank Indonesia reported that the value of Indonesia's digital transactions in August 2021 increased by 43.6% compared to the value in August 2020 of USD 1.73 billion (Kominfo, 2020)(Kominfo, 2020) this shows that Indonesia's digital economy has good potential to continue to be the main growth driver in 2021 and beyond, given its large domestic market driven by consumption and the acceleration in the use of digital tools during 2020 (OxfordBusinessGroup, 2021). The increasing number of MSMEs that rely on the digital segment, is an important source of employment in Indonesia, namely out of around 70 million Indonesians or a quarter of the population who work in the informal economy, around 8 million are freelancers or gig-economy workers who drive the digital ecosystem in Indonesia (OxfordBusinessGroup, 2021). If Indonesia can quickly return to pre-pandemic growth rates, then Indonesia could occupy the position of the seventh largest economy in the world in 2030, from 16th position in 2019, rising above Italy, Russia, South Korea, and others. To achieve this goal, countries must focus on building productivity and competitiveness after the COVID-19 pandemic subsides, an effort that requires immediate priority (Agarwal et al., 2021). The increase in the information and communication sector with the highest growth in Indonesia of 10.58% (year-on-year) in 2020, leads to three priority proposals for the digital economy working group at the G20 Forum, namely (1) Connectivity and Post-Covid-19, (2) Digital skills and digital literacy, (3) Cross-border data flow and free data flow with trust (Kominfo, 2020) . One of the obstacles in accelerating Indonesia's digital economy is digital talent with the need for up to 9 million individuals for various roles, especially in the fields of Science, Technology, Engineering & Mathematics (STEM) (Deloitte, 2021). The government's attention to increasing human capital is one of the roadmaps for Indonesia's economic development through the framework that is being implemented in the form of (1) Access to education, especially higher education, (2) Quality of educators and facilities, (3) Synergy between educational programs and agencies, (4) Vocational education network, and (5) Tax and fiscal incentives in the R&D sector. Basically it is an upgrade of human capital including by redesigning the curriculum and creating a professional talent mobility program (Kemenkeu & ADB, 2020). The description shows that the human capital factor is one of the priorities in increasing digital literacy.

Accounting is one of the professions that has been affected by automation since 2018 and is predicted to continue until 2025 (WorldEconomicForum, 2020) and requires adaptation to the adoption of information technology so that its professional relevance can contribute to the digital economy.

Table 1. Top 20 Job Roles in Increasing and Decreasing Demand Across Industries

	Increasing Demand		**Decreasing Demand**
1	Data Analytics and Scientists	1	Data Entry Clerks
2	AI and Machine Learning Specialist	2	Administrative and Executive Secretaries
3	Big Data Specialist	3	Accounting, Bookeping and Payrol Vlerks
4	Digital Marketing and Strategy Specialist	4	Accountant and Auditors
5	Process Automation Specialist	5	Assembly and Factory Workers
6	Business Development Professionals	6	Business Services and Administrative Managers
7	Digital Transformation Specialists	7	Client Information ad Customer Services Workers
8	Information Security Analyst	8	General and Operational Managers
9	Software and Application Developers	9	Mechanics and Machinerry Repairers
1	Internet of Things Specialists	1	Material Recording and Stock Keeping Clerks

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11	Project managers	11	Financial Analysts
12	Business Services and Administration Managers	12	Postal Services Clerks
13	Database and Network Professionals	13	Sales Representatives Wholesales and Manufactured, Tehcnical and Scientific Products
14	Robotics Engineers	14	Relationship Managers
15	Strategis Advisors	15	Bank Tellers and Related Clerks
16	Management and Organisation Analysts	16	Door to Door Sales News and Streets Vendors
17	FinTech Engineer	17	Electronics and Telecoms Installer and Repairers
18	Mechanics and Machinerry Repairers	18	Human Resources Specialists
19	Organisational Development Specialists	19	Trainning and Development Specialists
20	Risk Management Specialists	20	Construction Laborers

Source : Future of Jobs Survey 2020, Worl Economic Forum

Table. 1. shows the declining and increasing roles of various industries, including the accounting profession in the top position, which has decreased its role and has been replaced by automation. The needs of the accounting profession include the preparation of financial statements that are in accordance with financial standards (SAK) whose processes can be automated through various applications (Deloitte, 2019) that are integrated into the Accounting Information System (AIS) requiring various additional skills enhancements to strengthen the adoption of technology and networks culture (Deshmukh, 2006, p. 186; Mukherjee & Roy, 2017; Xia, 2016;Willems, 2018). There is a tendency that leads to the accounting profession and accounting educators not from accounting education (Afiyah, 2018).

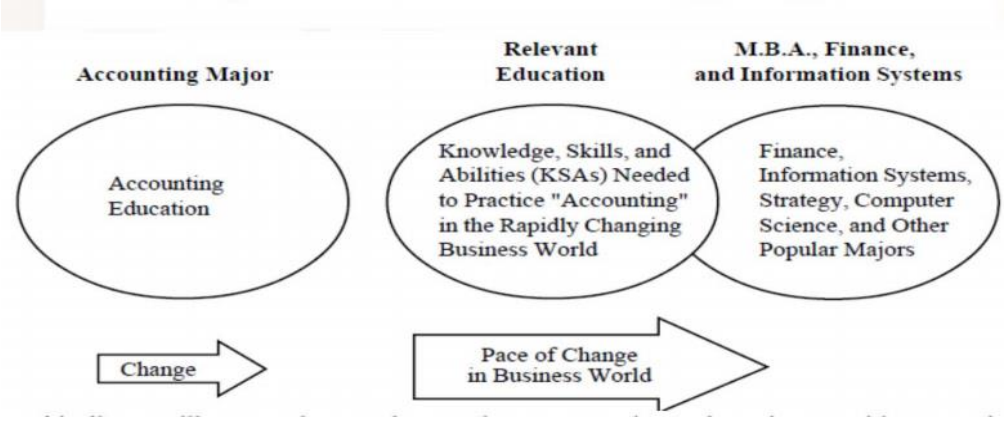


Figure 1.
Why Accounting Practitioner and Educators Would not Major in Accounting Again
Source : Afiyah, 2018

Two changes that have emerged and have caused accounting practitioners and educators not to choose the current accounting background because (1) accounting education has not changed much to adapt to changes in the business world, (2) changes that occur in the business world increase many changes in knowledge, skills and abilities. abilities (KSAs) that are needed to be carried out by an accountant that are also carried out by other than accountants such as low cost concepts, discipline, learning finance and also information systems. (Afiyah, 2018).

Al-Htaybat et al., (2018) and Holmwood & Servós, (2019) conducted research with the results that curriculum changes and changes in information technology practical learning patterns are needed. In addition, complementing the accounting curriculum with advanced IT knowledge and skills is a necessity. (Arens and Elder, 2006; Arnold and Sutton, 2007; Curtis et al., 2009; Pan & Seow, 2016). The development of business with the adoption of technology and automation causes accounting practices to become obsolete which requires a change in the direction of accounting education towards a new and different position from the previous one (Holmwood & Servós, 2019; Afiyah, 2018). The online learning process during the COVID-19 pandemic is part of increasing digital literacy for many parties. But on the other hand, there is a tendency for learning outcomes to decrease in effectiveness due to various obstacles. (detik.com). The research of Kusmaryono & Kusumaningsih, (2021) shows the effectiveness of distance learning as effective as face-to-face learning by 74%, who think it is more effective than face-to-face about 12% and 14% with mixed results

Based on the foregoing, this study was conducted to evaluate the interest of accounting students in increasing digital literacy in connection with accounting automation and as a preparation and adaptation material to adapt to the changes that are happening. The research was conducted by socializing cloud-based accounting automation and practicing it in one month with guidance from the provider. Furthermore, an evaluation of the increase in interest was carried out and continued with the process of automating financial reports using a spreadsheet application equipped with a script program which was carried out in modular stages in the form of sales and inventory modules, purchases with their inventory, perpetual inventory processes and calculation of cost of goods sold, adjustment processes and financial reports. accompanied by a ratio analysis that is available automatically with simple interpretation. At this stage the main orientation is at the operator data entry level, but has been introduced to the design pattern and drafter of an accounting automation application so that it is expected to increase digital literacy. This research is experimental with a technical approach to learning that is carried out fully online by providing materials in the form of cases and guides that are synchronous and asynchronous. The novelty of this research is to focus on the technical learning of accounting computerized practices that lead to the automation process through the introduction of simple algorithms and programming scripts so that financial report generation occurs automatically so that it is expected to increase interest in application design and other digital literacy

II. LITERATURE REVIEW

1. Accounting Computerisation and Automation

Accounting as an activity that occurs repeatedly with a large capacity is a significant activity to be automated (Deshmukh, 2006, p. 2). The automation process is developing continuously starting with the implementation of an enterprise resource planning (ERP) model with either a local area network (LAN) or a wide area network (WAN) connection with financial data and information still under the responsibility of the finance and accounting departments. The use of increasingly complex technology with complicated data management

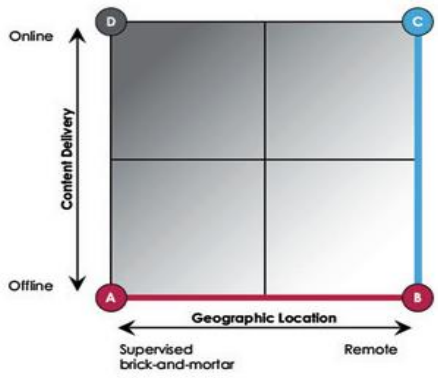
makes the existence of data centers and data management specialists accompanied by business demands that want ease of cross-regional transactions, making electronic data interchange (EDI) and electronic fund transfer (EFT) increasingly widely used, making the automation process the beginning of the process. transactions (Deshmukh, 2006, pp. 2–3). ERP is still a key instrument to improve efficiency, effectiveness and compliance with the company's operations and business activities (Mancini et al., 2016, p. 3). Currently, the new trend is towards information systems with a focus on the complexity of processing big data and unstructured information in innovative ways through the creation of flexible information system applications. A system that has the ability to meet the needs of strategic management and operational activities (Mancini et al., 2016, p. 3). The synergy between accounting information systems (AIS) and Information Technology (IT) requires a dynamic process with interactions between the two, with IT implementation at the operational level on transactional processing that is already based on data collaboration systems that will change systemically in the scope of management and the organization as a whole (Mancini et al., 2016, pp. 8–9). Changes that have a direct impact on the accounting profession are (1) Digitization and integration of vertical and horizontal value chains, (2) Digitization of product and service offerings, (3) Digital business models and customer access. While the transformations that take place and have an impact are (1) Artificial Intelligence (2) Blockchain (3) Cyber Risk (4) Big Data Analytic (Afiyah, 2018). Thus, the accounting profession should complement and improve its digital understanding and capabilities, including data analysis capabilities, information technology development and leadership skills to overcome future accounting conditions in the form of (1) cloud-based accounting data (2) Accounting is influenced by the power of using big data. (3) Accounting will integrate non-traditional financial information in modern systems (4) Accounting work is efficient and mobile (5) The role of accounting has changed radically (Afiyah, 2018). The responses needed for the preparation steps are (1) Investment in digital skills development (2) implementing new technology prototypes, learn by doing (3) International-based certification and digital skills education (4) Responsive to industry, business and technology developments (5) Curriculum and learning based on human digital skills (Afiyah, 2018). Meanwhile, Owens (2017) stated that the challenges of updating the ability of the profession in accounting firms include: (1) Applying fair value accounting on a newly developed piece of software (2) Tagging data using iXBRL for tax authorities (3) Using IT to collaborate with clients and across jurisdictions (4) Integrating data analytics as part of an audit approach and (5) Providing advice on cybersecurity gaps in fnancial reporting systems. Besides regulatory compliance, higher IT adoption rate among accounting functions is attributed to the push for improved productivity among accounting professionals. There has been increased investment in audit software and knowledge ((Pan & Seow, 2016). Advance information system capability is a very important requirement for accounting graduates (Evans et al., 2012). AICPA establishes a competency framework that the accounting profession must have the ability to adapt to information technology, and the AACSB (2014) includes business analytical skills in the AIS curriculum.

2. Learning Process and Educational Technology

Learning Process is a process that individuals or groups go through to acquire new knowledge and skills and ultimately influence their attitudes, decisions, and actions. This process includes activities using, adapting and reproducing structures or adjusting structures and involving mental processes and behavioral changes (IGI-Global). Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources. The use of new or existing

technologies to enhance the learning experience in its various forms (Huang et al., 2019, p. v). The use of technology in the form of audiovisual aids developed in personal computer and network technology and then shifted to the use of various cellular and artificial intelligence technologies as well as virtual and augmented reality. The use of various technology-based media is part of the current educational process that allows cross-regional and cross-institutional learning processes or based on collaboration or e-collaboration systems (IGI-Global). The results of research by Moran et al., (2011) that faculties that apply web-based technology show (1) more than 80% believe that online learning tools can improve learning performance and outcomes, (2) around 60% believe that social media can have an influence on the delivery of learning management, (3) around 70% believe that collaborative networking can lead to the identification of best learning practices in learning management. Overall, the learning management community believes that the determining factor for the success of the learning process is the large variety of competencies of instructors/educators and delivery methods (Rubin, R. & Dierdorff, 2013).

Blended Learning is learning that involves technology in the learning process that allows individuals to learn in a physical location and also away from location via the internet with flexibility over time, place and speed of the learning process. A broader understanding involves all possible methods (Hew & Cheung, 2015; Horn & Staker, 2011). Research by Dwijonagoro & Suparno, (2019) also stated that the most effective was hybrid learning model in their research.



Point	Blended?	Example of program
A	No	Traditional brick-and-mortar school
B	No	Home school without online delivery
C	Maybe	Purely virtual school (also called cyber school and e-school). It only figures into blended learning if a student uses it to self-blend with a traditional campus.
D	Yes	Theoretical pure-play for blended learning (100% online and 100% supervised brick-and-mortar)
	Yes	Student learns through a mix of online/offline and supervised brick-and-mortar/remote

Figure 2.
Blended Learning Matrix
Source : Horn & Staker, 2011; Hew & Cheung, 2014

In carrying out online learning, there are several things that must be prepared in order to support the success of the learning process and outcomes, including (1) Institutional support, (2) Infrastructure readiness, (3) Content readiness, (4) Instructor readiness, (5) Learner readiness (Hew & Cheung, 2015, p. 8).

Based on the description above, the hypothesis made is

Ha1 = Accounting Computerization has direct effect to Intention to Contribute Accounting digitization

Ha2 = Accounting Computerization has direct effect to Learning Process

Ha3 = Learning Process has direct effect to Intention to Contribute Accounting digitalisation

Ha4 = Online Learning Readiness has direct effect to Intention to Contribute Accounting digitalisation

Ha5 = Online Learning Readiness has direct effect to Learning Process

III. METHODS

This study uses a quantitative method that shows a causal relationship. Partial least square structural equation modeling (PLS-SEM) is used as a tool to analyze the theoretical conceptual relationship with empirical data (Hair et al., 2014). Indicators are arranged based on the reflective variables of each latent variable and intervening variable (Budhiasa, 2016, pp. 1–6; Hair et al., 2014). While the scale uses a semantic differential (Budhiasa, 2016, p. 16). The population in this study was around 175 participants who were divided into 4 groups of accounting computer learning processes that were designed in a modular transactional function with an orientation to entry level data skills, but each module was equipped and introduced to the accounting process in the form of automatic journaling accompanied by process algorithms and program language syntax. The experimental approach is used with three stages of the test process, namely the first stage is in the form of a pre-test of socialization and practice of cloud computing-based accounting computers with guidance from partner providers. The second stage is a post-test of cloud-based accounting computers and offline-based accounting computer pre-tests with a financial report automation approach and is transactional modular and financial statement analysis. The third stage is a post test of the learning outcomes. In the first pre-test the number of respondents was 134 participants, and in the second stage the number of respondents was 73 participants while in the third stage there were 94 participants.

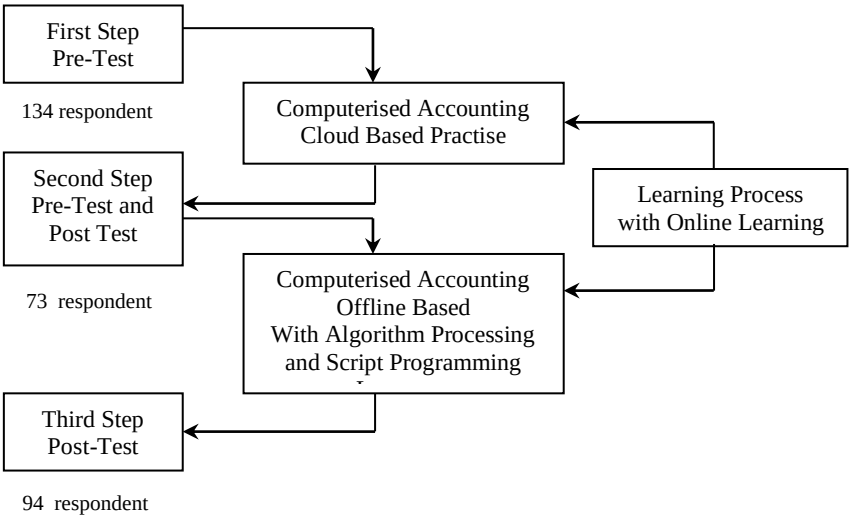


Figure 3.
Research Design

Comparison of the pre-test and post-test using descriptive analysis of the results of the respondents' answers, while the relational test was carried out in the third stage with a sample of 94 respondents using PLS-SEM. Testing through the outer model algorithm and inner model bootstraping.

IV. RESULTS

1. ***Descriptive analysis results in three stages of the test***

From the first stage of the pre-test before socialization and training on cloud computing-based accounting computers, 133 respondents showed that the interest in increasing digital literacy in the accounting field was 17.29% (Table 2.)

Table 2. Pre-test Result – First Step

Description	%	R
Just To Know or Just Experience	6.02%	8
Improving Digital Skills and Trying to Become an App Designer	17.29%	29
Accounting Operators For Work or Business	76.69%	102
Amount	100%	133

Note: R-Respondent

Meanwhile, in the second test after participating in the practice of computer accounting based on cloud computing, the results showed that interest in digital literacy increased more than the pre-test in the first stage (Table 3) with a desire to know more about 89.04% and a desire to try 86.30%. . Meanwhile, the interest in becoming an accounting application designer was from 17.29% to 63.01%.

Table 3. Post-test Result – Second Step

Description	Positive Responses		Negative Responses		Amount	
	R	%	R	%	R	%
Learn More Digital Accounting	65	89.04%	8	10.96%	73	100%
Trying More Digital Accounting	63	86.30%	10	13.70%	73	100%
Become an Accounting Designer	46	63.01%	27	36.99%	73	100%

Note: R-Respondent

The results of the third test (Table 4) after participating in a modular accounting computer practice exercise offline accompanied by the introduction of algorithms and process automation program scripts, the results obtained are the interest in accounting digitization which is relatively the same as the post-test second step after practicing cloud-based accounting computers. which is above 80%.

Table 4. Post-test Result – Third Step

Description	Positive Responses		Negative Responses		Amount	
	R	%	R	%	R	%
I want to learn more about programming for accounting or digital accounting applications	78	82.98%	16	17.02%	94	100%
I feel the need for a Virtual Accounting lab (Virtual laboratory for Practice) with special training towards computerization or accounting digitization	79	84.04%	15	15.96%	94	100%
I want to contribute to the development of computerized accounting or digital accounting	73	77.66%	21	22.34%	94	100%

Note: R-Respondent

Table 5 shows some of the respondents' statements related to the learning process and

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digitalization of accounting as a support for the results of this study. Basically, respondents tend to realize that the accounting transformation towards digitalization of accounting is taking place in the industrial world and is also aware of the importance of increasing their digital literacy even though they feel that more effort is needed in terms of energy and time in the learning process (Statements no. 1, 2, 3, and 4 with a positive response score of more than 80%). In statement no. 3 shows that the iterative process is an important part of the learning process in the digitization of accounting. Statement no. 5 and 6 show that the process carried out in groups provides positive competitive motivation to support increasing digital knowledge and skills with a positive response score above 75%. In statement no. 7 positive response scores below 70% indicate an indication that there are still obstacles in digital accounting knowledge and skills that still require adaptation and habituation processes. Statement no. 8 with a positive response score above 80% indicates that the online learning model with Asyncronous is very helpful in the learning process of computerized accounting practices. Likewise, the use of content providers (Statement no. 9) provides a lot of support for increasing understanding and computerized accounting skills with a positive response score above 70%.

Table 5. Another Descriptive Results

No.	Respondent Statements	Positive Responses		Negative Responses		Amount	
		R	%	R	%	R	%
1.	I believe the Accounting Process is undergoing a transformation (very fast change) from manual-semi-computer-electronics accounting-Digital Accounting	79	84.04%	15	15.96%	94	100.00%
2.	I realize that I have to improve my computerization and digital skills, especially in the digital accounting and digital business fields	82	87.23%	12	12.77%	94	100.00%
3.	I feel the need for repeated practice in understanding more about computerization or digitalization of accounting	82	87.23%	12	12.77%	94	100.00%
4.	I feel that I need more time to improve my computer or digital accounting skills	80	85.11%	14	14.89%	94	100.00%
5.	feel that learning accounting computers by forming a team or group really helps my understanding and proficiency process compared to studying alone	72	76.60%	22	23.40%	94	100.00%
6.	By studying accounting computers in a group, it motivates me to do better and become a positive competition in improving my accounting computer skills	75	79.79%	19	20.21%	94	100.00%
7.	I feel I prefer computer-based or digital accounting processes compared to manual accounting processes	63	67.02%	31	32.98%	94	100.00%
8.	I find it very helpful in the process of learning computer-based or digital accounting practices with the practical instructions in the form of a movie	79	84.04%	15	15.96%	94	100.00%

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9.	I use the internet a lot to support my understanding of computer accounting or digital accounting through content providers such as youtube	70	74.47%	24	25.53%	94	100.00%

Note: R-Respondent

2. ***Outer Model-Algorithm Test Results***

The research model used in testing using PLS-SEM, is in figure 4.

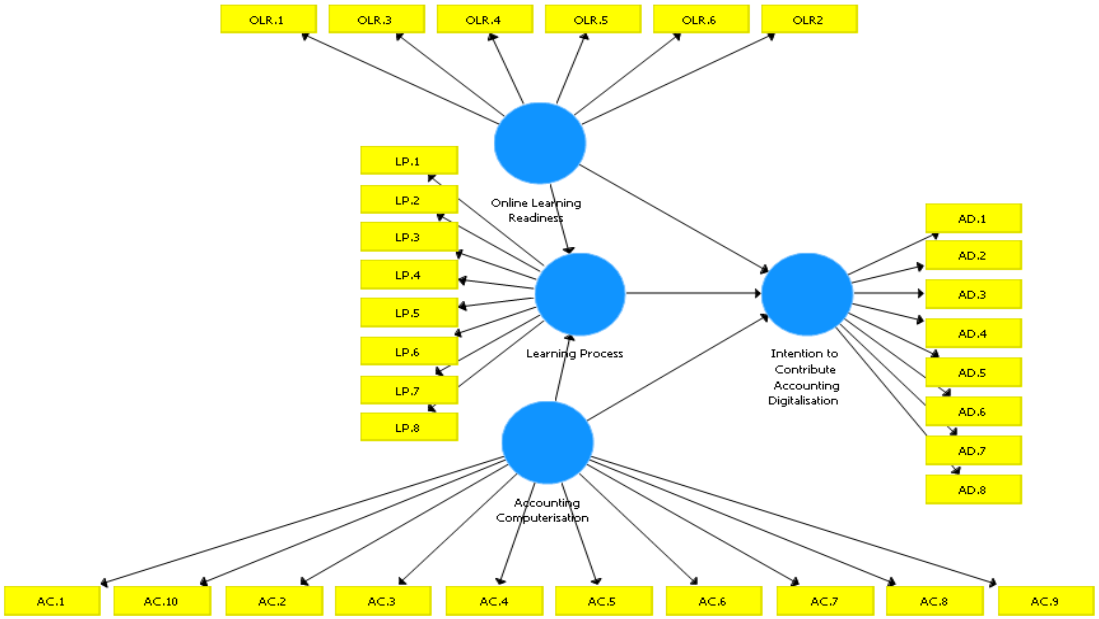

Figure 4.
Research Model

The results of the outer model-algorithm data processing process are shown in figure 5. The construct reliability and validity are shown in table 6.

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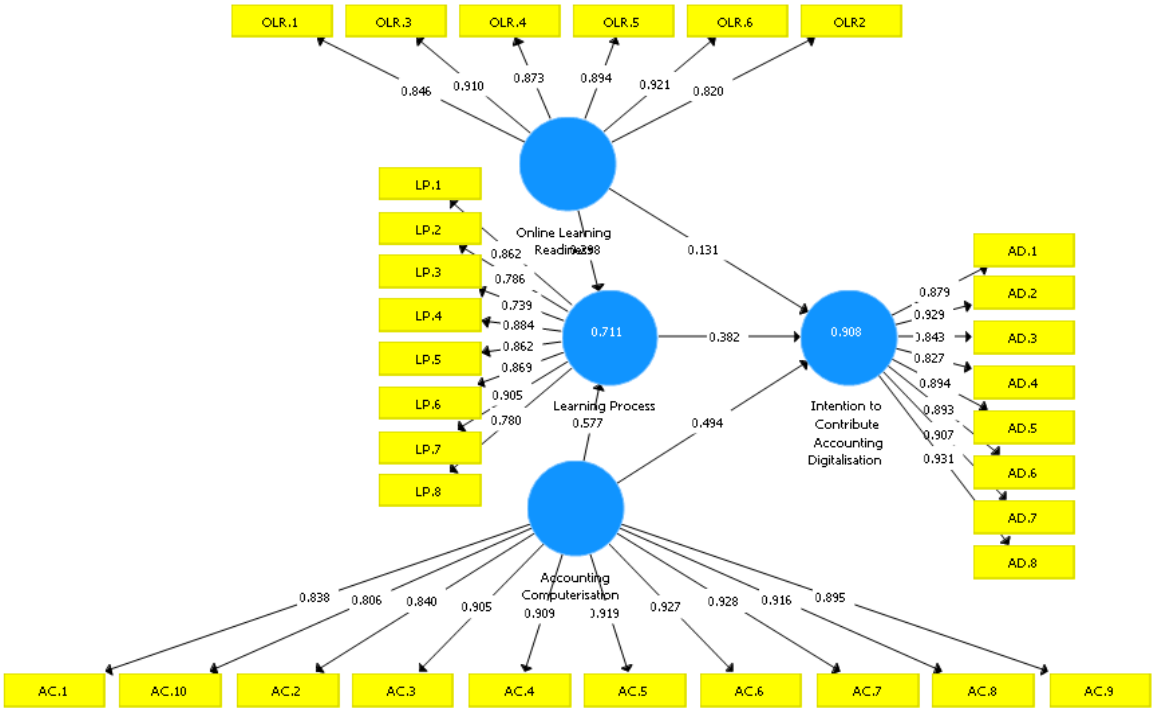

Figure 5.
Result of Outer Model Algorithm

Table 6. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reability	Average Variance Extracted (AVE)
Accounting Computerisation	0.970	0.971	0.074	0.791
Intention to Contribute Accounting Digitalisation	0.962	0.963	0.968	0.790
Learning Process	0.938	0.944	0.969	0.702
Online Learning Readiness	0.940	0.944	0.953	0.771

The results of the loading factor measurement with average variance extracted (AVE) were carried out to measure the validity of each indicator in each of the latent variables (Table 6). The AVE value with a range of >0.7 indicates that the result is a covarie and the convergence validity is valid and indicates a positive relationship between the indicator and the variable. Similarly, the results of composite reliability (CR) are above 0.7 and Cronbach's alpha is above 0.6 and AVE is above 0.5 (Hair et al., 2014). The ability to explain the latent variable is more than 50% or above 70% for each indicator. Table 7. shows the results of the measurement of cross correlation or measurements between constructs diagonally with the criterion that the construct being compared must be of greater value than the construct being measured so that the indicator can be called a valid discriminant. This means that the measurement shows a better ability of the construction block compared to other construction blocks (Budhiasa, 2016, pp. 29–31; Hair et al., 2014).

Table 7. Discriminant Validity - Fornell-Larcker Criterion

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	Accounting Computerisation	Intention to Contribute Accounting digitalisation	Learning Process	Online Learning Readiness
Accounting Computerisation	0.850			
Intention to Contribute Accounting digitalisation	0.847	0.848		
Learning Process	0.828	0.839	0.838	
Online Learning Readiness	0.841	0.846	0.783	0.848

Table 7. shows that the measurement of discriminant validity with heterotrait-monotrait (HTMT) is valid, which is above 0.85 (Henseler et al., 2009).

Table 8. Discriminant Validity - Heterotrait-Monotrait Ratio (HTMT)

	Accounting Computerisation	Intention to Contribute Accounting digitalisation	Learning Process	Online Learning Readiness
Accounting Computerisation				
Intention to Contribute Accounting digitalisation	0.847			
Learning Process	0.840	0.837		
Online Learning Readiness	0.832	0.825	0.827	

3. ***Inner model-bootstrapping test results***

Hypothesis testing is done through the inner model-bootstrapping shown in table 8.

Table 9. Result of Hypothetical Test - Inner Model

	Path Coefficient	**T**	**P Value**	**Hypothesis**
Accounting Computerisation --> Intention to Contribute Accounting digitalisation	0.494	6.479	0.000	Ha1 Accepted
Accounting Computerisation --> Learning Process	0.577	4.988	0.000	Ha2 Accepted
Learning Process --> Intention to Contribute Accounting digitalisation	0.382	5.171	0.000	Ha3Accepted
Online Learning Readiness --> Intention to Contribute Accounting digitalisation	0.131	1.966	0.050	Ha4 Rejected
Online Learning Readiness --> Learning Process	0.298	2.668	0.008	Ha5 Accepted

Referring to the t-test criteria with a value above 1.65 for a significance of 0.05 and t above 1.96 for a significance of 0.1 and a p value having a value below 0.05, the hypothesis is accepted (Hair et al., 2014). If the path coefficient is close to 1, the significance is positively strong, and vice versa if it is close to -1 then the negative significance is strong. One hypothesis was rejected with a p-value of 0.05, while the other was accepted with a positive significance. Table 10 shows the measurement results of R square with reference to the criteria (R2) 0.67 potential, 0.33 average, 0.19 weak (Chin, 1998; Hair et al., 2014). The ability to explain from Intention to Contribute Accounting Digitalization is 90% while the Learning process has the ability to explain at 71%. So that both have the potential to explain.

Table 10. Result of R Square

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	R^2 (R Square)	Determination
Intention to Contribute Accounting Digitalisation	0.908	Potential Determination
Learning Process	0.711	Potential Determination

In table 11, the test with f2 (f square) to measure the effect of the construct with criteria 0.02 includes the small size effect, 0.15 includes the medium size effect and 0.32 includes the large size effect (Cohen, 1988). Which has a large effect sequentially, namely Accounting Computerization on Intention to Contribute Accounting digitization, Learning Process on Intention to Contribute Accounting digitization and Accounting Computerization on Learning Process shows that the contribution to Intention to Contribute Accounting digitization directly from accounting computerization or through the learning process has an effect the big one. In contrast to online learning readiness, which has a small effect both on the learning process and on the Intention to Contribute Accounting digitization, which can be caused by the online learning process that has been running for a long time so that respondents are used to and focus on computerized accounting and automation processes.

Table 11. Result of Inner Model - f Square

	f Square	Effect
Accounting Computerisation --> Intention to Contribute Accounting digitalisation	0.580	Large Effect
Accounting Computerisation --> Learning Process	0.337	Large Effect
Learning Process --> Intention to Contribute Accounting digitalisation	0.458	Large Effect
Online Learning Readiness --> Intention to Contribute Accounting digitalisation	0.050	Small Effect
Online Learning Readiness --> Learning Process	0.090	Small Effect

Figure 6 shows the results of the inner model with bootstrapping

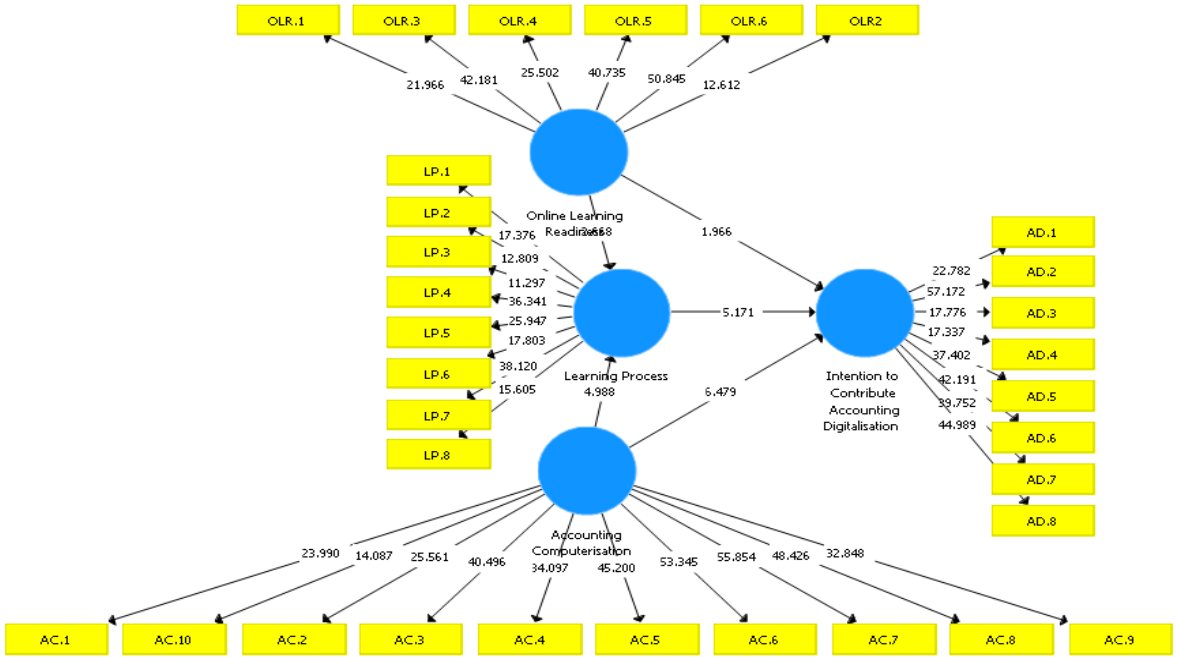

Figure 6.

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Result of Inner Model Bootstrapping

V. DISCUSSION

The Effect of Accounting Computerisation to Intention in Contributing Accounting digitalisation

The results of the inner model on hypothesis testing show that the direct effect is proven or accepted with a positive significance of 0.494 or almost 50%, this situation can be considered moderate when compared to the criteria close to 1, the stronger the significance (Hair et al., 2014). If it is seen from the results of the responses in the pre-test and post-test with relatively large results, which are above 80% positive responses to contribute to digital accounting (table 3 & table 4), the results of the 50% significance are less supportive. There is a possibility that the test that produces 50% significance is carried out in the third stage where the learning process is carried out accompanied by the accounting process algorithm on the application system accompanied by the syntax of the automation program, causing difficulties for respondents who all have accounting and management backgrounds. So the results from hypothesis testing are somewhat contradictory to the results from the pre-test and post-test. In addition, because the learning process is carried out fully online so that the need for interactive when a problem solving case occurs is the cause. The ideal best learning process is hybrid learning, not just online learning (Dwijonagoro & Suparno, 2019; Kwok et al., 2015, p. 113; Sangster et al., 2020).

The Effect of Accounting Computerisation to Learning Process

This relationship is seen from the results of the inner model on hypothesis testing (table 9.) with the largest path coefficient of 0.577 or close to 60% indicating the significant strength of the influence of accounting computers on the learning process. Judging from the results of f square (table 11.) which is included in the large effect category with a value of 0.337. from table 5 related to the learning process there are results that show a figure of 76.60% and 79.79% for the state of the learning process with the team in supporting individual understanding which is in line with Bergdahl et al., (2020) view related to the learning process with a team that can increase motivation with positive competition among the team. Likewise with the inquiry-based learning approach pattern (Masterson, 2020) respondents explored through content providers by 74.47% and support for Asynchronous movies as additional instructions in solving cases with results of 84.04% showing that a learning environment with the support of various computer tools can stimulate desire for independent exploration (Masterson, 2020). In addition, independent exploration can improve the digital literacy of the individual concerned (Bergdahl et al., 2020). From table 5 it can also be seen that the respondent's condition for the need for more time to learn digital accounting is 85.11% and requires a repeated process of 87.23% accompanied by the condition of respondents who state that they prefer computer-based or digital accounting processes compared to manuals by 67.02%, indicating that the respondent's condition is still face difficulties in understanding accounting automation and accounting digitization. With a figure of 67.02% even though it is included in the positive response, but it is still not optimal, it shows that in the learning process there are still obstacles that require a redesign as stated by Pincus et al., (2017) in overcoming the gap in the development of knowledge and technological capabilities with readiness for accounting automation requires changes to what we teach (curriculum) and how we teach (pedagogy). From table 4, the situation of respondents who feel the need for a virtual accounting lab is 84.04% and the desire to learn more is 82.98% and table 5 with a figure of 84.04% is related to respondents' awareness

of the accounting transformation process towards digitalization, it can be concluded that respondents basically willing to understand more in relation to the digitization of accounting, but with the figure of 77.66% in table 4 to contribute to the digitization of accounting has decreased, it shows as if there is a reluctance from respondents to directly contribute

VI. CONCLUSION

The design of the learning process to lead to the automation or digitization of accounting greatly influences the intention to contribute to the development of automation and digitalization of accounting. Especially the socialization of conditions that occur in the industry, the iterative learning process (Diffusion) on accounting automation, the use of an inquiry-based learning approach and additional supporting materials such as asynchronous movies and others.

VII. LIMITATION

This research was conducted with a full online learning process. Ideally it is done with blended learning or hybrid learning with settings on active interaction patterns with participants. The limited interaction causes a lack of communication, especially when participants have difficulty solving cases.

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