

6-30-2022

INDONESIAN ACCOUNTING STUDENTS' SELF-CONFIDENCE TO ADOPT ARTIFICIAL INTELLIGENCE (AI)


Gina Andani
University of Lampung, ginaandani@gmail.com

Lindrianasari Lindrianasari
University of Lampung, lindrianasari@feb.unila.ac.id

Reni Oktavia
University of Lampung, reni.oktavia@feb.unila.ac.id

Ratna Septiyanti
University of Lampung, ratna.septiyanti@feb.unila.ac.id

Follow this and additional works at: <https://scholarhub.ui.ac.id/jaki>

 Part of the [Accounting Commons](#), [Business Intelligence Commons](#), [International Business Commons](#), [Management Information Systems Commons](#), and the [Technology and Innovation Commons](#)

Recommended Citation

Andani, Gina; Lindrianasari, Lindrianasari; Oktavia, Reni; and Septiyanti, Ratna (2022) "INDONESIAN ACCOUNTING STUDENTS' SELF-CONFIDENCE TO ADOPT ARTIFICIAL INTELLIGENCE (AI)," *Jurnal Akuntansi dan Keuangan Indonesia*: Vol. 19: Iss. 1, Article 2.

DOI: 10.21002/jaki.2022.02

Available at: <https://scholarhub.ui.ac.id/jaki/vol19/iss1/2>

This Article is brought to you for free and open access by the Faculty of Economics & Business at UI Scholars Hub. It has been accepted for inclusion in *Jurnal Akuntansi dan Keuangan Indonesia* by an authorized editor of UI Scholars Hub.

Jurnal Akuntansi dan Keuangan Indonesia
Volume 19 Issue 1 June 2022

INDONESIAN ACCOUNTING STUDENTS' SELF-CONFIDENCE TO ADOPT ARTIFICIAL INTELLIGENCE (AI)

Gina Andani

Department of Accounting, University of Lampung
ginaandani@gmail.com

Lindrianasari

Department of Accounting, University of Lampung
lindrianasari@feb.unila.ac.id

Reni Oktavia

Department of Accounting, University of Lampung
reni.oktavia@feb.unila.ac.id

Ratna Septiyanti

Department of Accounting, University of Lampung
ratna.septiyanti@feb.unila.ac.id

Abstract

The development of artificial intelligence (AI) in accounting as the impact of industrial revolution 4.0 has raised various concerns regarding the future of accountants and the possibility that accountants will be replaced by AI. Businesses are continuously adopting AI globally and particularly in Indonesia, AI adoption raises concerns that accountants will be replaced with AI due to the lack of competence to work with AI. A descriptive study with a quantitative approach was conducted in January 2021 by distributing questionnaires that collected a convenience sample of 476 respondents from universities across Indonesia. The required criteria of respondents are the active Indonesian undergraduate accounting students (class of 2016-2020). Therefore, this research will examine how the AI-based curriculum provided by universities relates to the competency of prospective accountants. The research also examines how the prospective accountants' competency affects the readiness of accounting students to adapt and work with AI so that their roles are not entirely replaced by AI, especially for Indonesian accounting students as prospective accountants. The last part of this research will underline that the development of AI therefore should not be a concern for the future of accountants and accounting students in Indonesia. However, to have the prospective accountants prepared to work with AI and enter the industry 4.0 workforce after they graduate, the accounting students need to enhance their competencies. The accounting educators also need to enhance their curricula by providing more practice-related courses to improve the capability of accounting students to operate accounting softwares.

Keywords: *artificial intelligence, industry 4.0, accounting students, accountant competency.*

Abstrak

Perkembangan kecerdasan buatan (AI) di bidang akuntansi sebagai dampak dari revolusi industri 4.0 telah menimbulkan berbagai kekhawatiran mengenai masa depan akuntan dan kemungkinan bahwa akuntan akan tergantikan oleh AI. Dengan banyaknya bisnis yang terus mengadopsi AI, baik secara global maupun khususnya di Indonesia, pengadopsian AI ini menimbulkan kekhawatiran bahwa peran akuntan akan digantikan oleh AI karena kurangnya kompetensi akuntan untuk dapat bekerja dengan AI. Studi deskriptif dengan pendekatan kuantitatif dilakukan pada Januari 2021 dengan menyebarkan kuesioner yang mengumpulkan sampel sebanyak 476 responden dari universitas di seluruh Indonesia. Kriteria responden yang dibutuhkan adalah mahasiswa S1 akuntansi Indonesia yang sedang aktif (tahun angkatan 2016-2020). Oleh karena itu, penelitian ini akan mengkaji bagaimana kurikulum berbasis AI yang diberikan oleh perguruan tinggi terkait dengan kompetensi calon akuntan. Penelitian ini juga mengkaji bagaimana kompetensi calon akuntan memengaruhi kesiapan mahasiswa akuntansi untuk beradaptasi dan bekerja dengan AI sehingga perannya tidak sepenuhnya tergantikan oleh AI, khususnya bagi mahasiswa akuntansi Indonesia sebagai calon akuntan. Akhir dari penelitian ini akan menggarisbawahi bahwa perkembangan AI oleh karena itu tidak boleh menjadi perhatian bagi masa depan akuntan dan mahasiswa akuntansi di Indonesia. Namun, agar para calon akuntan lebih siap bekerja dengan AI dan memasuki dunia kerja industri 4.0 setelah mereka lulus, mahasiswa akuntansi masih perlu meningkatkan kompetensinya. Oleh karena itu, para pendidik akuntansi juga perlu meningkatkan kurikulum mereka dengan menyediakan lebih banyak kursus terkait praktik untuk meningkatkan kemampuan mahasiswa akuntansi dalam mengoperasikan perangkat lunak akuntansi.

Kata kunci: kecerdasan buatan, industri 4.0, mahasiswa akuntansi, kompetensi akuntan.

INTRODUCTION

The industrial revolution 4.0 is a concept that refers to the next level of development in the manufacturing industry which is marked by the development of the Internet of Things (TheJakartaPost 2018). The development of Internet of Things is followed by the increasing creation of various technologies, one of which is artificial intelligence or generally abbreviated as AI. However, this development of technology, which is created to make work easier for human, also raises concerns that AI might replace human as worker and taking over their roles especially for the accountants (Ghufron 2018). According to a research from the University of Oxford in 2015, there is a 95 percent chance of losing jobs for the accountants as machines take over the role of data analytics and computation (Greenman 2017). Another research

conducted by Frey and Osborne (2017) is also resulting that the accountants are vulnerable to computerization with 94 percent of probability.

As in Indonesia, even if the AI is increasingly being created, there are still lots of entrepreneurs who have not adopt AI in their business (WartaEkonomi 2019a). According to a survey entitled "Future Ready Business: Assessing Asia Pacific's Growth Potential Through AI" conducted by Microsoft and research firm International Data Corporation (IDC), there are only 14 percents of companies in Indonesia that have actually adopted AI (Microsoft 2019). However, a research conducted by IDC also resulted that 51% of companies Indonesia are planning on adopting AI in the next 2 to 3 years (Bisnis 2018), yet this adoption also still have obstacles to be applied. According to Harris Izme, the President Director of Microsoft Indonesia, one of the obstacles

for adopting AI in Indonesia is the sufficiency of human resource skills to remain relevant in AI-based business environment ((Microsoft 2019). The accounting educators could seize this opportunities of the fourth industrial revolution through the constant revision and adaptation of their curriculum and syllabus to the new requirements of the labor market. Bachelor and master degree programmes in accounting should become interdisciplinary, with an enhanced technological content. Academics are required to prepare students for a successful career of the future accountant (Stancheva-Todorova 2019).

The professional accountants work environment is also constantly changing and is creating new demands of employer expectations regarding accounting graduates' skills and abilities (Wessels 2005). In Indonesia, the rapid development of AI is also a concern, especially for accountants. As reported by CNBC Indonesia (2018), the economic observer Chatib Basri stated that digital technology such as AI has the potential to cause new unemployment of around 5.1 million people in Indonesia (Bosnia and Indonesia 2018). The reason is because many conventional jobs, especially in the financial sector, have been replaced by technology. As an example in the financial market sector such as accountants, they previously did their job conventionally yet they have to change using online technology as technologies continue to develop. In this case, they had to be trained for new skills to use the technology applied in their job in order to have them keep working. Otherwise, it is not impossible that they might be jobless since they do not have the skills to work with technology (Bosnia and Indonesia 2018). Meanwhile, accounting firms have invested excessively in technology innovations, accounting education has not kept pace yet. The current accounting curricula at universities worldwide is lack of courses in AI technologies that helpfully prepare

accounting students as prospective accountants for changes in the industry they will work in (Damerji and Salimi 2021). The Association to Advance Collegiate Schools of Business (AACSB) recently has noticed the increasing demand for IT knowledge and skills in accounting professionals. AACSB has required their accounting accredited schools to follow the 2016 AACSB International Accounting Accreditation Standard A7, which requires the accounting degree programs to integrate information technologies in the curricula (IAESB 2018). Otherwise, as concerned by The Pathways Commission in Charting a National Strategy for the Next Generation Accountants (AAA 2012), the significant gap between academic curricula and professional practice could bring the accountant profession at intense risk of not being able to fulfill the value proposition (IAESB 2018).

Moreover, a lot of jobs are needed since the number of people majoring in accounting at various universities in Indonesia is huge. This becomes a major challenge for accountants in the era of the fourth industrial revolution. A study conducted by International Academic Institute for Science and Technology resulted that Indonesia needs more than 200,000 professional accountants, while in fact, currently we only have around 10,000 professional accountants in Indonesia (WartaEkonomi 2019b). With the development of technology and to have the opportunity to fill the vacancy of this professional accountant positions, Sukirno D.S, an accounting lecturer of University of Yogyakarta, stated that it is necessary to have prospective accountants who have the competence to work and collaborate with digital technology such as AI (DDTCnews 2019). The competencies needed to be sharpened while the prospective accountants are still in college, so that when they graduate, they are ready to face the challenges and compete in industrial revolution 4.0 with sufficient skills (Handoko et al. 2019). The accounting

students need to be ready along with their competencies to face the AI integrated accounting world. Academics, practitioners, and professional societies should help accounting students to fully understand the importance and the use of AI supporting accounting courses in their long-term career (Pan and Seow 2016).

In summary, there is a need of further understanding on how developments in AI are affecting accounting, and how are the competencies of accountants in the industrial revolution 4.0 era to work with AI. As summarized from several journals that examined the adoption of AI towards the accountants and their competencies, this research was taking the gap to specifically examine the curriculum provided by the university, the competencies of accounting students, and the readiness to work with AI, where there are not many journals that specifically examining on the readiness to work with AI through the perspective of accounting students as a whole, not only accounting students who will soon enter the workforce or only from the perspective of employers. It is also important to collaborate what kind of competency that the market needs and the curriculum provided by the university that is used to prepare the prospective accountants.

Therefore, the following research questions are addressed:

1. Are the curriculums provided by university in Indonesia have a positive relationship with the competencies of the accounting students?
2. Are the competencies of the accounting students have a relationship to readiness to work with AI?

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Theory of Planned Behavior

The theory of planned behavior (TPB) was introduced by Icek Ajzen in 1985. The theory was reviewed and refined in 1991. As explained in the theory, there

are three factors which could build intention and predict human behavior as follows (Ajzen 1991; Yang et al. 2018).

1. *Attitude towards behavior*, is how far an individual has a positive or negative attitude of the given behavior.
2. *Subjective norms*, which are an individual's social pressure to perform or not to perform the behavior.
3. *Perceived behavioral control*, refers to the perceived competence to perform the behavior based on the person's past experience or predicted obstacles.

The growing technology, which rises the emergence of AI, rising the adoption of AI in many sectors including accounting. Accountants and prospective accountants therefore should actively adapt to technology and update their knowledge, otherwise they might be replaced by AI (Güney 2014; Li and Zheng 2018). The willingness to extent knowledge and adopt technology therefore could be examined through the factors mentioned in the theory of planned behavior explained.

AI and Accounting

AI Began to become a component of labor activities at the beginning of the Industrial Revolution 4.0. With this advanced technology, everything may be well-handled and being a helper for today's companies in processing large amounts of data. Therefore, many people assume that the role of accountants are going to be replaced by machines. However, if we look further, it is the shortage of skills and knowledge regarding the operation of the technology that causes new accountants such as millennials to feel threatened by the presence of technology (Handoko et al. 2019).

In another 20 years, accountants will again, might play a different role. Their roles will change substantially over the next decade. More emphasis is going to be placed on consulting, business development, advisory services, and risk management. Accountants must embrace specialization and therefore the use of technology

(Greenman 2017). The various technological developments raise a new challenge in accounting learning. Moreover, later the role of accountants in recording is more likely to be replaced by AI. Therefore, accounting learning should be able to integrate these issues into the learning material.

Curriculum and The Competencies of The Accounting Students

A research conducted by Khanh (2018) has examined the impact of industry 4.0 and the adoption of industry 4.0 in the accounting professional career, which resulting that there were a few accountants, auditors, as well as career associations and leaders of accounting and auditing organizations that are focus on adopting the industry 4.0 in their career. In order to catch up with opportunities from industry 4.0, auditors and audit firms should be aware of industry 4.0 and willing to look for opportunities from there .

Referring to the definitions of curriculum in Oxford Dictionaries and Merriam-Webster Dictionary, the curricula means a set of subjects offered in a school or college. Various research, which examined the skills and attributes that the accounting graduates need to have, resulting that there are some agreements between students and employers in terms of the skills required for a careers' success in today's business or accounting world, which is analytical or problem solving skills, oral and written communication skills, teamwork and continuous learning (Awayiga et al. 2010; Kavanagh and Drennan 2008). Another research also found that accounting graduates are expected to be able to use financial spreadsheets, business graphics, word processing, presentation software, database management systems and communication software (Chen et al. 2009; IAESB 2018). The accounting educators are also playing a role in shaping the curriculum and the competencies of the accounting students. Therefore, Stancheva-Todorova (2018) has

attempted a research to examine the readiness of the accounting educators to embrace the challenges of industry 4.0, which ensures that despite the challenges of the expanding digitalization of businesses and exponentially growing technologies, universities have to begin their way to the Industry 4.0 with confidence. The accounting educators could seize the opportunities of the fourth industrial revolution through the constant revision and adaptation of their curriculum and syllabus to the new requirements of the labor market. Academics are required to prepare students for a successful career as the future accountant. Another research discussed by Güney (2014) which discussing on the role of technology in accounting and e-accounting also in agreement that the curricula also should fit for that, and trained individuals should be ready for technology and be able to use it.

Based on the previous researches explained above, it can be concluded that the academic curriculum plays a role in shaping the competency of accounting graduates and that there is an empirical gap to examine this opinion from the perspective of the currently active accounting students.

AI Development and The Readiness of The Accounting Students

The emergence of AI as a part of the growing technology has caused some accountants losing their jobs to some extent. With the use of technology and changes that enterprises, it will make the business process and, costs being significantly reduced. Moreover, benefiting from technology in accounting education and the use of computers, and package programs in individuals training to perform this job and teaching how the record of all documents used in accounting will be kept in electronic media is very important. Accountants should actively adapt to the development of technology, constantly innovating, changing themselves, updating their knowledge, and becoming an

irreplaceable high-quality accountant in order to not being replaced by AI (Güney 2014; Li and Zheng 2018).

By becoming an accountant who is good in accounting, science in technology, and soft skills, millennial accountants will be able to compete in the economic world, both with fellow accountants and sophisticated technology (Handoko et al. 2019). The accounting students need to be ready along with their competencies to face the AI integrated accounting world. This readiness is inevitably associated with self-confidence of the accounting students to adopt AI. The self-confidence is realized to uncertainty and risk preference that plays a significant role in determining individuals' decisions (Chaouali et al. 2017; Pan and Seow 2016). Academics, practitioners and professional societies should help the accounting students to fully understand the importance and the use of AI in supporting accounting courses in their long-term career (Pan and Seow 2016).

New Accounting Information System and Industry 4.0

The accounting information system is defined as a system that collects, records, stores, and processes data to produce information for the decision makers. Accounting information system includes people, procedures and instructions, data, software, technology and information, infrastructure, internal controls, and security measures (Romney and Steinbart 2015). The presence of industry 4.0 has had a changing effect on various fields of human activities, including the accounting information system and the accounting profession. The industrial revolution 4.0 is a concept that refers to the next level of development in the manufacturing industry marked by the development of the Internet of Things or generally called as IoT. The development of IoT is followed by new technologies, including AI (Ghufron 2018).

The development of industry 4.0, especially the development of AI, makes a stronger support for accounting information systems, where industry 4.0 develops various technologies that improve the development of data processing, software and information technology infrastructure, which are the parts of accounting information systems. This development has indeed shaped a new accounting information system (Yoon 2020).

Artificial Intelligence (AI)

Nowadays, consciously or not, in our standard of living we can't be separated from the role of AI. AI is powering various programs and services such as the filter feature in e-mail, social media, mobile banking, online maps, and many others we are able to find. AI is a technology in which computers or robots are programmed to be ready to do tasks that are usually done by humans, similar to humans doing their jobs (TheManifest 2018).

Artificial Intelligence term was introduced by John McCarthy in 1956 who defined AI as the science and engineering of making intelligent machines. AI is that the branch of computing that deals with the study and style of intelligent agents that perceives its environment and takes actions that maximize its chances of success. AI is also defined as the ability to carry two different ideas in mind at the identical time and still remain the ability to function (Singh et al. 2013).

Although AI actually is familiar in daily life, there are still lots of entrepreneurs who have not adopt AI in their business (WartaEkonomi 2019a). According to a survey entitled "Future Ready Business: Assessing Asia Pacific's Growth Potential Through AI" conducted by Microsoft and research firm International Data Corporation (IDC), there are only 14 percents of companies in Indonesia that have actually adopted AI. The low adoption of AI in Indonesia is

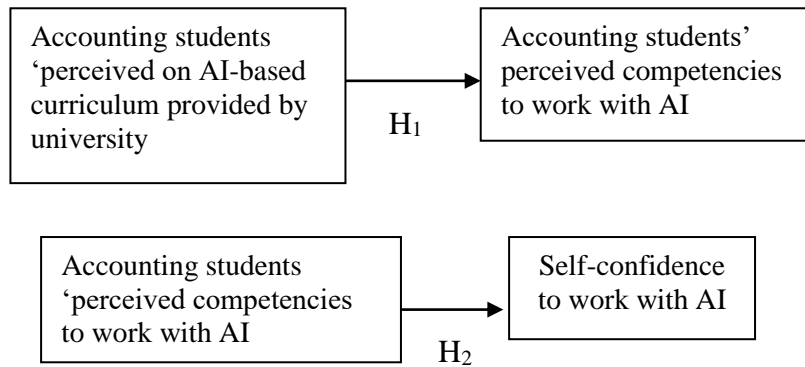


Figure 1
Research Framework

suspected due to the perception between leaders and employees regarding AI implementation. Especially since there are still many workers who are skeptical about the adoption of AI in their companies (Kompas 2019; Microsoft 2019). However, research conducted by IDC also resulted that 51% of Indonesian companies are planning on adopting AI in the next 2 to 3 years (Bisnis 2018), yet this adoption also still have obstacles to be applied. According to Harris Izmee, the President Director of Microsoft Indonesia, one of the obstacles in adopting AI in Indonesia is the sufficiency of human resource skills to remain relevant in AI-based business environment ((Microsoft 2019).

Therefore, based on the literature review and previous researches explained above, the hypotheses of this research are:

H₁: Accounting students' perceive on AI-based curriculum provided by university in Indonesia has a positive relationship towards the Accounting students' perceived competencies to work with AI.

H₂: Accounting students' perceived competencies to work with AI have a relationship to the self-confidence of accounting students in Indonesia to work with AI.

Research Framework

The related variables in the hypotheses explained can be drawn in these figures below as proposed in the research framework.

Although the theories used for the variables do not have that much of differences, the research is examining two dependent variables since the focus of each dependent variables and each independent variables which affect the dependent variables are different.

RESEARCH METHOD

The research is using descriptive study with quantitative approach and is using purposive judgment sampling technique to get the sample. The questionnaires as research instrument consists of 3 questions in Respondents Background, and total of 20 questions are divided into 3 sections for each research variable.

Type and Source of Data

The type of research used is a descriptive study with quantitative approach. This research is examining the readiness of accounting students to work with AI regarding to the competencies gained from curriculum provided by the university for the implementation of AI. The research uses primary data from questionnaires that are distributed directly to undergraduate accounting students through the WhatsApp Group of "Heads of Undergraduate Accounting Department" across Indonesia to obtain the required data. The questionnaires used the Likert scale to obtain the opinion of the respondents and distributed to respondents

Table 1
Courses that Support Accounting Students to Work with AI

Courses that Support Accounting Students to Work with AI
<ul style="list-style-type: none"> • Introductory Accounting • Financial Accounting • Management Accounting • Cost Accounting • Intermediate Financial Accounting • Auditing • Accounting Information System • Taxation

Source: <https://www.ifac.org/system/files/publications/files/IAESB-Information-Communications-Technology-Literature-Review.pdf>

by google forms. The questionnaires, which consists of 3 questions in Respondents Background, and the total of 20 questions, which are divided into 3 sections for each research variables are arranged based on the order of the research variables from the first to the third variable with each variables' measurements. The data that has been collected is analyzed using IBM SPSS Statistics 22 with Simple Linear Regression technique for each hypothesis proposed. The questionnaire used to obtain the opinion of the respondents is using 5-point the Likert scale, with the scoring of:

- Strongly Disagree (SD): 1 point
- Disagree (D): 2 points
- Neutral (N): 3 points
- Agree (A): 4 points
- Strongly Agree (SA): 5 points.

Population and Sample

The population in this research are the accounting students in Indonesia. The accounting students are chosen because they are the prospective accountants, in which by the time the AI is increasingly developing, including in the field of accounting and of course, they are more likely to be affected by the development of AI especially after they graduate and working as accountants.

This research used purposive judgment sampling to get the sample. Purposive judgment sampling is a

sampling method which involves the choice of subjects who are most advantageously placed or in the best position to provide the information required (Sekaran and Bougie 2016). Therefore, the sample used in this research are the active undergraduate accounting students in Indonesia during the research process, which was specifically the students of 2016-2020 class. Undergraduate accounting students in Indonesia are chosen for the sample because they represent the accounting students as prospective accountants of Indonesia. This sample determination was also based on the research conducted by Awayiga et al. (2010) that examined the knowledge and skills development of accounting graduate in Ghana and the research conducted by Damerji (2019) that examined the impact of readiness on AI technology adoption by accounting students at two universities in Southern California.

Variable Operational Definition and Variable Measurement Accounting Students' Perceive on AI-Based Curriculum Provided by University

The first independent variable in this research was the accounting students' perceive on AI-based curriculum provided by university in order to prepare the accounting students as prospective accountants to be able to work with AI. This variable was measured based on whether the university has or has not

Table 2
Courses that Support Students to Work with AI

Skills-Based Competencies Needed by Accounting Students to Work with AI Based On IAESB 2018
Be able to use following software:
<ul style="list-style-type: none"> • Financial spreadsheets • Business graphics • Word processing • Presentation • Audit • Tax preparation • Small business systems • Database management system • Computerized accounting packages • Communication software (e-mail, file transfer, web browser)
Source: https://www.ifac.org/system/files/publications/files/IAESB-Information-Communications-Technology-Literature-Review.pdf

provided courses that support accounting students to prepare to work with AI. Table 1 showed the courses that support students, specifically accounting students, to work with AI that are adapted from information system-based courses from IAESB (2018) and Sledgianowski et al. (2017).

Accounting Students' Perceived Competencies to Work with AI

This variable is measured by the set of skill-based competencies required by the accounting students to work with AI and acted both as the second independent variable and first dependent variable. This measurement was adapted from the information and communication technology skills required of new accounting graduates in the research conducted by Chen et al. (2009) and IAESB (2018) as shown in Table 2. The variable measurement was also supported by the competency of the accounting students to operate the kind of AI that have been implemented in the accounting field. According to Stancheva-Todorova (2019), the cloud-based accounting software are influencing the accounting transformation and skills profile of the accountant 4.0. Therefore, assuming that the accounting software is most commonly used in

Indonesia. In this research, top 5 brand awards accounting software in Indonesia for the year 2020 (which are SAP, Accurate, Omegasoft, MBSOft, and MYOB) are also used along with their features to generate the indicator of basic skills needed to operate the software.

Self-confidence to Work with AI

The second dependent variable in this research was the self-confidence of accounting students to work with AI. This variable was measured by the Technology Acceptance Model and AI Technology Adoption adapted from the research of Damerji (2019) in order to measure the readiness or the self-confidence of the accounting students to use and work with AI as shown in Table 3. This measurement is used since it has been tested and it describes well how confident the prospective accountants to embrace the adoption of AI.

Research Instrument

In order to generate the results from the collected data, the following tests are done for this research.

- Validity Test
- Reliability Test
- Descriptive Statistics

Table 3
Technology Acceptance Model and AI Technology Adoption

Technology Acceptance Model
Using AI technologies in my future accounting or auditing job would enable me to accomplish tasks more quickly.
Using AI technologies would improve my future job performance in accounting or auditing.
Using AI technologies in my future accounting or auditing job would increase my productivity.
Using AI technologies would enhance my effectiveness on the job in accounting or auditing.
Using AI technologies would make it easier to do my future job in accounting or auditing.
I would find AI technologies useful in my future job in accounting or auditing.
Learning to operate AI systems in accounting or auditing would be easy for me.
I would find it easy to get AI systems to do what I want it to do in accounting or auditing.
My interaction with AI systems in accounting/auditing would be clear/understandable.
I would find AI systems in accounting or auditing to be flexible to interact with.
It would be easy for me to become skillful at using AI systems in accounting or auditing.
I would find AI systems in accounting or auditing easy to use.
AI Technology Adoption
I consider using AI technologies as an entry-level accountant or auditor.
I will use AI technologies when performing accounting or auditing tasks as an entry level accountant or auditor.

Source:Technology Acceptance Model and AI Technology Adoption (Damerji (2019)

- Simple Linear Regression Analysis
- Significance Test of Individual Parameters (t-test)
- Coefficient of Determination (R^2 test)

RESULT AND ANALYSIS

The validity test that has been done for the variables resulting that each indicator was valid by indicating that each r-values obtained from the calculation are higher than the r-table. Therefore, it can be concluded that the research instrument used, which is the questionnaire, is considered as valid to measure the variables studied in this research.

The reliability test in this research is using Cronbach’s Alpha method. The closer Cronbach’s alpha is to 1, the higher the internal consistency reliability. Testing can be considered to be reliable if Cronbach’s alpha is $>0,6$. (Sekaran and Bougie 2016). The reliability tests that have been done for each variable are resulting that the Cronbach’s alpha of each variable are higher than 0.6. Therefore, the research instrument used in this research, which is the questionnaire, can be considered as reliable as a data collection tool and able to reveal the actual information. The data in this research could also be analyzed further.

Table 4
Respondents Profile Based on University

No.	Origin University	Number of Respondents	Percentage
1	Public University	154	32.35%
2	Private University	322	67.65%
Total of Respondents		476	100.00%

Table 5
Respondents Profile Based on Year of Class

Year of Class	Number of Respondents	Percentage
2016	19	3.99%
2017	101	21.22%
2018	98	20.59%
2019	153	32.14%
2020	105	22.06%
Total	476	100.00%

In accordance to the sample, the questionnaire was distributed within the scope of undergraduate accounting students in Indonesia. The number of respondents who responded the questionnaire was 480. However, the data that can be used was only 476 since the required criteria of respondents were the undergraduate accounting students who are currently an active student. Meanwhile, the other 4 respondents did not meet the criteria, so that the data cannot be used in this research.

The 476 respondents were gathered from 29 universities across Indonesia. The majority of the respondents were from Private University with the percentage of 67.65%, and the rest of 32.35% were from Public University as shown in Table 4.

While based on year of class as shown in Table 5, out of 476 respondents 153 (32.14%) respondents were from class of 2019, 105 (22.06%) respondents are coming from class of 2020, 101 (21.22%) respondents were from class of 2017, 98 (20.59%) respondents were from class of 2018, and the rest of 19 (3.99%) respondents were from class of 2016.

From the collected data, it can be concluded that most of the respondents

were from the class of 2019. It can also be seen that most of the respondents are freshmen, since the majority of them were from the class of 2019 with the percentage of 32.14%, and the second largest number of respondents were from the class of 2020 with the percentage of 22.06%.

From the results according to Appendix 2, for the three questions regarding the accounting students' perceive on AI-based curriculum provided by the university they are currently studying at, resulting that, most of the accounting departments of the universities in Indonesia have provided the proper AI-based courses in their curriculum, while for the learning of accounting software, the respondents think that they could learn the operation of accounting software independently outside the class despite the majority of the university has provide courses related to operate accounting software.

Referring to Appendix 3, for the three questions regarding the accounting students' perceive competencies to work with AI, the majority of respondents tend to agree that they are able to operate the software which they need to master as an accountant. However, the result shows that

Table 6
Regression test of X₁ towards Y₁

	Model	Unstandardized Coefficient (B)	T	Sig.
X1 towards				
Y1	(Constant)	3.116	5.863	0.000
	Perceived Competencies	0.535	11.474	0.000
X2 towards				
Y2	(Constant)	41.702	27.487	0.000
	Perceived Curriculum	1.212	7.606	0.000

Table 7
Significance Test of Individual Parameters (t-test) Results

Hypothesis	t-calculated	t-table	Sig.
H₁ : Accounting students' perceive on AI-based curriculum provided by university in Indonesia has positive relationship with accounting students' perceived competencies Accounting students' perceived competencies to work with AI.	11,474	0,0898	0,000
H₂ : Accounting students' perceived competencies Accounting students' perceived competencies to work with AI have a relationship to self-confidence of accounting students in Indonesia to work with AI.	7,606	0,0898	0,000

they are not too familiar or only familiar to some of the top 5 accounting software in Indonesia, as their answers were mostly neutral, and the result also showed that majority of the respondents find that they are not yet capable to operate the Top 5 accounting software in Indonesia that they will likely use as an accountant in Indonesia.

Lastly, for the fourteen statements regarding the self-confidence to work with AI in the questionnaire, according to Appendix 4 it was found that mostly the majority respondents were agreed towards the statements, which means that they are confident about adopting and considering to use AI technologies, and almost sure that they will be ready to use AI technologies when they are working in accounting or auditing.

In order to obtain the answer to the research questions, simple linear regression test was done for each question, in which the results is provided in Table 6.

From the first regression test that explained the impact of accounting students' perceive on AI-based curriculum provided by university in Indonesia (X₁) towards the accounting students' perceived competencies to work with AI (Y₁), the regression model could be formed as follows:

$$Y_1 = \alpha + \beta_1 X_1 + \epsilon$$

$$Y_1 = 3,116 + 0,535X_1$$

Therefore, the regression test result was illustrating that the variable accounting students' perceive on AI-based curriculum provided by university in Indonesia has a positive impact toward the

accounting students' perceived competencies variable to work with AI by 0,535 or 53.5% increase for every 1 time increasement of students' perceive on AI-based curriculum provided by universities in Indonesia.

While for the second regression test, which explained the impact of accounting students' perceived competencies to work with AI (X_2) towards the self-confidence to work with AI (Y_2), the regression model obtained can be drawn as follows.

$$Y_1 = \alpha + \beta_2 X_2 + \varepsilon$$

$$Y_1 = 41,702 + 1,212 X_1$$

From the regression model above, the regression test result illustrated that the variable accounting students' perceived competencies to work with AI has a positive impact towards self-confidence of accounting students to work with AI by 1,212 or 121.2% for every 1 time increase-ment of accounting students' perceived competencies to work with AI.

The significant test of individual parameters was performed to determine the effect of each independent variable individually on the dependent variable. The significance of the regression coefficient as a whole was tested using the t-test degrees of freedom (df) = $n - k$ where k is the number of independent variable of each analysis, at a 95% confidence level and $\alpha = 0.05$.

Therefore, as can be seen in Table 7, the t-calculateds are higher than t-table values with sig $0,000 < 0.05$, each independent variables in Hypothesis 1 and Hypothesis 2 have significant effect on their dependent variables. Thus, both hypotheses can be accepted.

This results of H_1 testing supported the research conducted by Awayiga et al. (2010); Güney (2014); Stancheva-Todorova (2019), which concluded that the curriculums should fit for the integration of technology development in accounting, and trained individuals should be open to technology and can be used. As the result found out that the accounting students'

perceived on curriculum provided by university has a positive and significant influence towards accounting students' perceived competencies. Since the result of H_2 testings showed that the accounting students' perceived competencies positively affected the self-confidence of accounting students in Indonesia to work with AI, this results supported the research conducted by Handoko et al. (2019), which mentioned that the competencies of the prospective accountants need to be sharpened when they are still students. This is done to get them ready to face the challenges and compete in industrial revolution 4.0 with sufficient skills when they graduate.

CONCLUSION

Based on the data collected and the analysis that have been performed for the research, it is found that the accounting students' perceived on AI-based curriculum provided by university in Indonesia positively and directly affected the accounting students' perceived competencies to work with AI. The accounting students' perceived competencies to work with AI was also found to be positively and directly affected the self-confidence of accounting students in Indonesia to work with AI. The analysis also resulted that universities, along with the accounting educators in Indonesia are helping in shaping the skills or competencies of the accounting students and prospective Indonesian accountants to work with AI, and making sure the accounting students fully understand the importance and the use of AI in supporting accounting courses in their future career in the era of industry 4.0 by providing the proper curriculums. From the perspective of the accounting students, it is also concluded that students can learn to operate accounting software independently outside the class. However, they are still uncertain that they are capable to operate all the software that they need to master in order to work with AI. They also might not

familiar or only familiar to some of the top 5 accounting software in Indonesia. Since the largest number of respondents are from the class of 2019 and 2020 with total of 54.20% respondents, this uncertainty might be more or less influenced by the perspective of majority of the respondents who are currently in the early stage of college, that they might not have enough experienced in college and gaining more competencies to be ready to work especially, with AI. However, the results of the research might not be overly biased to the perspective of majority respondents from University of Muhammadiyah Surakarta, since the percentage of the respondents is not quite much different from the percentage of respondents collected from other universities.

Although the uncertainty of the accounting students in Indonesia regarding their capability and knowledge of several accounting software that they will likely use later, the development of AI therefore should not be a concern for the future of accountants and the current accounting students in Indonesia. Because based on the analysis the accounting students as prospective Indonesian accountants are mostly confident about adopting and considering to use AI technologies and almost certain that they will be ready to use AI technologies when they are in the working field.

Suggestion

For Universities

From this study, it can be found that universities and accounting educators in Indonesia have provided proper curriculums to support the skills shaping and competencies of the accounting students as future accountants to work with AI. However, students are still uncertain about their capability to operate the accounting software as part of working with AI. Thus, the author suggests the university to provide more practice-related courses to enhance the capability of accounting students to operate accounting

softwares so that they will be more ready to work with AI and compete in industry 4.0 workforce after they graduate.

For Future Researcher

This study has taken a sample of undergraduate accounting students in Indonesia. Future researcher may take other specific sample to be examined, such as the undergraduate accounting students of Top 10 universities in Indonesia, examining the topic from the perspective of accounting students of another education level, or other specific ways can be used. Future researches are also encouraged to find out other variables that are affecting the perceived competencies of accounting students and self-confidence of the accounting students to work with AI.

Research Limitations

This research is added to the literature on exploring competencies of future accountants and their readiness to enter the industrial revolution 4.0 era and work with AI. During the process of the research, the author discovered a limitation in the sample used, which is relatively big yet specific data to produce better analysis is hardly found. Since this research examined the variables only through the perspective of active undergraduate accounting students as a whole to fill the gap from previous studies that have been mentioned, future research may want to discover the topic from another education level. Future research could also pick specific samples, such as choosing specific universities, choosing more specific measurements for the variables, or collaborate the perspective of students along with employers' and academicians' to provide wider insights which have not been provided in this study.

REFERENCE

- Ajzen, I. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.

- Awayiga, J. Y., J. M. Onumah, and M. Tsamenyi. 2010. Knowledge and skills development of accounting graduates: The perceptions of graduates and employers in Ghana. *Accounting Education*, 19(1–2), 139–158.
- Bisnis. 2018. *Riset IDC: Sekitar 51% Perusahaan Berminat Adopsi Teknologi Kecerdasan Buatan*. [Web page]. Access from <https://m.bisnis.com/amp/read/20181205/105/866646/riset-idc-sekitar-51-perusahaan-berminat-adopsi-teknologi-kecerdasan-buatan>
- Bosnia, T., and C. Indonesia. 2018. *Teknologi Digital Berpotensi Timbulkan 5,1 Juta Pengangguran*. Halaman web]. Diakses dari <https://www.cnbcindonesia.com/tech/20180205202513-37-3596/teknologi-digital-berpotensi-timbulkan-51-juta-pengangguran>
- Chaouali, W., N. Souiden, and R. Ladhari. 2017. Explaining adoption of mobile banking with the theory of trying, general self-confidence, and cynicism. *Journal of Retailing and Consumer Services*, 35, 57–67.
- Chen, J., D. Damte, J.M. Banatte, and J. Mapp. 2009. Information Technology Competencies Expected in Undergraduate Accounting Graduates. *Research In Higher Education Journal*, 3, 1–7.
- Damerji, H. 2019. Technology Readiness Impact on Artificial Intelligence Technology Adoption By Accounting Students, University of La Verne. *ProQuest Dissertations and Theses*, November.
- Damerji, H., and A. Salimi. 2021. Mediating effect of use perceptions on technology readiness and adoption of artificial intelligence in accounting. *Accounting Education*, 30(2), 107–130.
- DDTCnews, R. 2019. *Masuk ke Era 4.0, Akuntan akan Ketinggalan Zaman?* [Web page]. Access from https://news.ddtc.co.id/masuk-ke-era-40-akuntan-akan-ketinggalan-zaman-16668?page_y=0
- Frey, C. B., and M. A Osborne. 2017. The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, 114, 254–280.
- Ghufron, M. A. 2018. *Revolusi industri 4.0: tantangan, peluang dan solusi bagi dunia pendidikan*. 332–337.
- Greenman, C. 2017. Exploring the Impact of Artificial Intelligence on the Accounting Profession. *Journal of Research in Business, Economics and Management*, 8 (3), 1451–1454.
- Güney, A. 2014. Role of Technology in Accounting and E-accounting. *Procedia - Social and Behavioral Sciences*, 152, 852–855.
- Handoko, B. L., A. N. Mulyawan, J. Samuel, and K. K. Rianty. 2019. *Facing Industry Revolution 4. 0 for Millennial Accountants. 1*, 1037–1042
- IAESB. 2018. *Information and Communications Technology Literature Review. February*.
- Kavanagh, M. H., and L. Drennan. 2008. What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations. *Accounting & Finance*, 48(2), 279–300.
- Khanh, L. T. 2018. Proceedings of the 5th International Conference on Finance and Economics 2018. In *Proceedings of The 5th International Conference on Finance and Economics 2018*.
- Kompas. 2019. *Tantangan Penerapan Artificial Intelligence di Indonesia*. [Web page]. Access from <https://amp.kompas.com/tekno/read/2019/03/12/18300787/tantangan-penerapan-artificial-intelligence-di-indonesia>
- Li, Z., and L. Zheng. 2018. The impact of artificial intelligence on retraining. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, 181(Icsshe), 469–476.

- Microsoft. 2019. *Adopsi Artificial Intelligence di Indonesia: Pengembangan Talenta Masa Depan*. [Web page]. Access from <https://news.microsoft.com/id-id/2019/03/12/adopsi-artificial-intelligence-di-indonesia-pengembangan-talenta-masa-depan/>
- Pan, G., and P. S. Seow. 2016. Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. *Journal of Education for Business*, 91(3), 166–175.
- Romney, M. B., and P. J. Steinbart. 2015. *Accounting information systems* (13th ed.). Pearson Education, Inc.
- Sekaran, U., and R. Bougie. 2016. *Research Methods for Business: a skill-building approach* (7th ed.). John Wiley & Sons.
- Singh, G., A. Mishra, and D. Sagar. 2013. An Overview of Artificial Intelligence in Education. *Encyclopedia of Information Science and Technology, Third Edition, 1*, 2445–2452.
- Sledgianowski, D., M. Gomaa, and C. Tan. 2017. Toward integration of Big Data, technology and information systems competencies into the accounting curriculum. *Journal of Accounting Education*, 38, 81–93.
- Stancheva-Todorova, E. P. 2018. How Artificial Intelligence is Challenging Accounting Profession. *Journal of International Scientific Publications*, 12, 126–141.
- Stancheva-Todorova, E. P. 2019. Are Accounting Educators Ready to Embrace the Challenges of Industry 4.0. *International Scientific Journal "Industry 4.0,"* 4(6), 309–312.
- Stancheva-Todorova, E. P. 2019a. the Knowledge and Skills Profile of Accountant 4.0. *Horizons*, 79–97.
- TheJakartaPost. 2018. *Industry 4.0 career guide: How to avoid being replaced by robots*. [Web page]. Access from <https://www.thejakartapost.com/amp/life/2018/05/21/industry-4-0-career-guide-how-to-svid-being-replaced-by-robots-1526880346.html>
- TheManifest. 2018. *16 Examples of Artificial Intelligence (AI) in Your Everyday Life*. https://medium.com/@the_manifest/16-examples-of-artificial-intelligence-ai-in-your-everyday-life-655b2e6a49de
- Warta Ekonomi. 2019a. *Adopsi AI di Indonesia Masih Minim, Kenapa?* [Web page]. Access from <https://amp.wartaekonomi.co.id/berita/219236/adopsi-ai-di-indonesia-masih-minim-kenapa>
- Warta Ekonomi. (2019b). *Masa Depan Akuntansi : Batasan Baru Teknologi dan Keamanan Siber*. [Web page]. Access from <https://www.wartaekonomi.co.id/read/217566/masa-depan-akuntansi-batasan-baru-teknologi-dan-keamanan-siber>
- Wessels, P. L. 2005. Critical information and communication technology (ICT) skills for professional accountants. *Meditari Accountancy Research*, 13(1), 87–103.
- Yang, Y., J. N. Choi, and K. Lee. 2018. Theory of Planned Behavior and Different Forms of Organizational Change Behavior. *Social Behavior and Personality: An International Journal*, 46 (10), 1657–1671.
- Yoon, S. (2020). A study on the transformation of accounting based on new technologies: Evidence from Korea. *Sustainability (Switzerland)*, 12(20), 1–23.

APPENDIX 1**QUESTIONNAIRE DESIGN**

I. LATAR BELAKANG RESPONDEN (BACKGROUND OF RESPONDENTS)																
1.	Dari universitas manakah Anda berasal? <i>Which university are you from?</i>															
2.	Angkatan berapakah Anda di universitas? <i>Which batch are you from?</i>															
	<table> <tbody> <tr> <td>1.</td> <td>Angkatan 2016 <i>Class of 2016</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td>2.</td> <td>Angkatan 2017 <i>Class of 2017</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td>3.</td> <td>Angkatan 2018 <i>Class of 2018</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td>4.</td> <td>Angkatan 2019 <i>Class of 2019</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td>5.</td> <td>Angkatan 2020 <i>Class of 2020</i></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	1.	Angkatan 2016 <i>Class of 2016</i>	<input type="checkbox"/>	2.	Angkatan 2017 <i>Class of 2017</i>	<input type="checkbox"/>	3.	Angkatan 2018 <i>Class of 2018</i>	<input type="checkbox"/>	4.	Angkatan 2019 <i>Class of 2019</i>	<input type="checkbox"/>	5.	Angkatan 2020 <i>Class of 2020</i>	<input type="checkbox"/>
1.	Angkatan 2016 <i>Class of 2016</i>	<input type="checkbox"/>														
2.	Angkatan 2017 <i>Class of 2017</i>	<input type="checkbox"/>														
3.	Angkatan 2018 <i>Class of 2018</i>	<input type="checkbox"/>														
4.	Angkatan 2019 <i>Class of 2019</i>	<input type="checkbox"/>														
5.	Angkatan 2020 <i>Class of 2020</i>	<input type="checkbox"/>														
3.	Apakah Anda merupakan mahasiswa S1 Akuntansi? <i>Are you an undergraduate accounting student?</i>															
	<table> <tbody> <tr> <td>1.</td> <td>Ya <i>Yes, I am</i></td> <td><input type="checkbox"/></td> </tr> <tr> <td>2.</td> <td>Jika Tidak, mohon maaf jawaban saudara berhenti disini <i>If No, Please stop here</i></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	1.	Ya <i>Yes, I am</i>	<input type="checkbox"/>	2.	Jika Tidak , mohon maaf jawaban saudara berhenti disini <i>If No, Please stop here</i>	<input type="checkbox"/>									
1.	Ya <i>Yes, I am</i>	<input type="checkbox"/>														
2.	Jika Tidak , mohon maaf jawaban saudara berhenti disini <i>If No, Please stop here</i>	<input type="checkbox"/>														

PETUNJUK MENJAWAB PERTANYAAN BERIKUT:
GUIDANCE TO ANSWER THE QUESTIONS BELOW:

Pilih jawaban dari pertanyaan dalam kuesioner berikut, yang terdiri dari 5 alternatif jawaban.
 Choose the right answer for the questions below.

- 1. **STS** untuk pernyataan Sangat Tidak Setuju (Strongly Disagree)
- 2. **TS** untuk pernyataan Tidak Setuju (Disagree)
- 3. **N** untuk pernyataan Netral (Neutral)
- 4. **S** untuk pernyataan Setuju (Agree)
- 5. **SS** untuk pernyataan Sangat Setuju (Strongly Agree)

No.	STATEMENT	STS	TS	N	S	SS
ACCOUNTING STUDENTS' PERCEIVE ON CURRICULUM PROVIDED						
1.	Apakah kurikulum jurusan Anda menawarkan mata kuliah berikut? <i>Does your department curriculum offer the following courses?</i> <ul style="list-style-type: none"> • Introductory Accounting • Financial Accounting • Management Accounting • Cost Accounting • Intermediate Financial Accounting • Auditing • Accounting Information System • Taxation <i>Source: International Accounting Education Standards Board, 2018</i>					
2.	Apakah kurikulum jurusan Anda menawarkan mata kuliah terkait pengoperasian software akuntansi? <i>Does your department curriculum offer courses related to operate accounting software?</i>					
3.	Menurut Anda, apakah pengoperasian software akuntansi dapat dipelajari oleh mahasiswa secara otodidak diluar kelas? <i>In your opinion, can students learn the operation of accounting software independently outside the class?</i>					
ACCOUNTING STUDENTS' PERCEIVED COMPETENCIES						
1.	Apakah Anda dapat mengoperasikan jenis software berikut? <i>Can you operate the following types of software?</i> <ul style="list-style-type: none"> 1. Financial spreadsheets (Contoh: Microsoft Excel) 2. Business graphics (Contoh: Zahir Accounting) 3. Word processing 4. Presentation 5. Audit 					

	6. Tax preparation (Contoh: E-SPT Pajak) 7. Small business systems (Contoh: The balance small business) 8. Database management system (Contoh: Microsoft Access) 9. Computerized accounting packages (Contoh: MYOB) 10. Communication software (e-mail, file transfer, web browser) Source: International Accounting Education Standards Board					
2.	Apakah Anda mengetahui software akuntansi berikut? <i>Are you familiar with the following accounting software?</i> 1. SAP Accounting 2. Accurate 3. Omegasoft 4. MBSof MYOB					
3.	Apakah Anda dapat mengoperasikan software akuntansi berikut? <i>Can you operate the following accounting software?</i> 1. SAP Accounting 2. Accurate 3. Omegasoft 4. MBSof 5. MYOB					
SELF-CONFIDENCE TO WORK WITH AI						
1.	Menggunakan teknologi AI dalam pekerjaan akuntansi atau audit saya di masa depan akan memungkinkan saya menyelesaikan tugas dengan lebih cepat. <i>Using AI technologies in the future for my accounting or auditing job would enable me to accomplish tasks more quickly.</i>					
2.	Menggunakan teknologi AI akan meningkatkan kemampuan kinerja pekerjaan masa depan saya di bidang akuntansi atau audit. <i>Using AI technologies would improve my future job performance in accounting or auditing.</i>					
3.	Menggunakan teknologi AI dalam pekerjaan akuntansi atau audit saya di masa depan akan meningkatkan produktivitas saya. <i>Using AI technologies in my future accounting or auditing job would increase my productivity.</i>					
4.	Menggunakan teknologi AI akan meningkatkan efektivitas pekerjaannya di bidang akuntansi atau audit. <i>Using AI technologies would enhance my effectiveness on the job in accounting or auditing.</i>					

5.	Menggunakan teknologi AI akan mempermudah pekerjaan saya di masa depan di bidang akuntansi atau audit. <i>Using AI technologies would make it easier to do my future job in accounting or auditing.</i>					
6.	Saya akan merasa teknologi AI berguna dalam pekerjaan masa depan saya di bidang akuntansi atau audit. <i>I would find AI technologies useful in my future job in accounting or auditing.</i>					
7.	Belajar mengoperasikan sistem AI dalam akuntansi atau audit akan mudah bagi saya. <i>Learning to operate AI systems in accounting or auditing would be easy for me.</i>					
8.	Saya akan merasa mudah membuat sistem AI untuk melakukan apa yang saya inginkan dalam akuntansi atau audit. <i>I would find it easy to get AI systems to do what I want it to do in accounting or auditing.</i>					
9.	Interaksi saya dengan sistem AI dalam akuntansi/audit akan menjadi jelas/dapat dimengerti. <i>My interaction with AI systems in accounting/auditing would be clear/understandable.</i>					
10.	Saya akan merasa sistem AI dalam akuntansi atau audit fleksibel untuk berinteraksi. <i>I would find AI systems in accounting or auditing to be flexible to interact with.</i>					
11.	Mudah bagi saya untuk menjadi terampil dalam menggunakan sistem AI dalam akuntansi atau audit. <i>It would be easy for me to become skillful at using AI systems in accounting or auditing.</i>					
12.	Saya akan merasa sistem AI dalam akuntansi atau audit mudah digunakan. <i>I would find AI systems in accounting or auditing easy to use.</i>					
13.	Saya mempertimbangkan untuk menggunakan teknologi AI sebagai akuntan atau auditor level awal. <i>I consider using AI technologies as an entry-level accountant or auditor.</i>					
14.	Saya akan menggunakan teknologi AI saat melakukan tugas akuntansi atau audit sebagai akuntan atau auditor tingkat awal. <i>I will use AI technologies when performing accounting or auditing tasks as an entry-level accountant or auditor.</i>					

APPENDIX 2

Accounting students' perceive on AI-based curriculum provided

No	Statement	Answer					Average (1-5)
		SD	D	N	A	SA	
1	Does your department curriculum offer the following courses?						
	• Introductory Accounting						
	• Financial Accounting						
	• Management Accounting						
	• Cost Accounting	2.90%	3.80%	18.10%	30.90%	44.30%	4,10
	• Intermediate Financial Accounting						
	• Auditing						
	• Accounting Information System						
2	Does your department's curriculum offer courses related to operate accounting software?	4.80%	7.10%	25.60%	31.90%	30.50%	3,76
	In your opinion, can students learn the operation of accounting software independently outside the classroom?	8.20%	14.90%	38.00%	22.10%	16.80%	3,24

Source: Data processed, 2021

APPENDIX 3

Accounting students' perceived competencies to work with AI

No	Statement	Answer					Average (1-5)
		SD	D	N	A	SA	
1	Can you operate the following types of software?						
	1. Financial spreadsheets						
	2. Business graphics						
	3. Word processing						
	4. Presentation						
	5. Audit	9.00%	11.10%	39.50%	28.80%	11.60%	3,23
	6. Tax preparation						
	7. Small business systems						
	8. Database management system						
	9. Computerized accounting packages						
2	Do you know the following accounting softwares?						
	1. SAP Accounting						
	2. Accurate	13.90%	15.50%	33.20%	25.20%	12.20%	3,06
	3. Omegasoft						
	4. MBSOFT						
3	Can you operate the following accounting softwares?						
	1. SAP Accounting						
	2. Accurate	18.90%	18.70%	38.00%	15.10%	9.20%	2,77
	3. Omegasoft						
	4. MBSOFT						

Source: Data processed, 2021

APPENDIX 4

Self-confidence to work with AI

No	Statement	Answer					Average (1-5)
		SD	D	N	A	SA	
1	<i>Using AI technologies in my future accounting or auditing job would enable me to accomplish tasks</i>	2.90%	1.10%	23.10%	42.90%	30.00%	3,96
2	<i>Using AI technologies would improve my future auditing.</i>	2.30%	2.10%	21.80%	43.30%	30.50%	3,97
3	<i>Using AI technologies in my future accounting or auditing.</i>	2.90%	1.70%	24.80%	41.00%	29.60%	3,93
4	<i>Using AI technologies would enhance my auditing.</i>	2.30%	2.30%	22.30%	43.10%	30.00%	3,96
5	<i>Using AI technologies would make it easier to do</i>	2.90%	1.50%	21.20%	42.20%	32.10%	3,99
6	<i>I would find AI technologies useful in my future</i>	2.30%	2.10%	23.50%	40.80%	31.30%	3,97
7	<i>Learning to operate AI systems in accounting or</i>	3.40%	4.00%	38.00%	34.20%	20.40%	3,64
8	<i>I would find it easy to get AI systems to do what I</i>	3.60%	5.50%	38.20%	34.00%	18.70%	3,59
9	<i>My interaction with AI systems in accounting/auditing would be</i>	2.30%	2.70%	41.40%	35.90%	17.60%	3,64
10	<i>I would find AI systems in accounting or auditing to be flexible to interact with.</i>	3.20%	2.50%	39.10%	37.60%	17.60%	3,64
11	<i>It would be easy for me to become skillful at using AI systems in accounting or auditing.</i>	3.20%	3.60%	43.10%	34.00%	16.20%	3,57
12	<i>I would find AI systems in accounting or auditing easy to use.</i>	3.20%	3.80%	41.80%	35.10%	16.20%	3,57
13	<i>I consider using AI technologies as an entry-level accountant or auditor.</i>	3.40%	3.60%	40.30%	37.00%	15.80%	3,58
14	<i>I will use AI technologies when performing accounting or auditing tasks as an entry-level accountant or auditor.</i>	2.90%	2.30%	36.80%	40.50%	17.40%	3,67

Source: Data processed, 2021