THE INTEREST, KNOWLEDGE, AND USAGE OF ARTIFICIAL INTELLIGENCE IN ACCOUNTING: EVIDENCE FROM ACCOUNTING PROFESSIONALS

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ABSTRACT

Artificial intelligence, along with other recent advancements in technology, has revolutionized business processes around the world. The purpose of this paper is to determine if artificial intelligence has become a popular tool utilized by corporations and/or accounting firms around the Southwest Florida region. Given that artificial intelligence will significantly impact the accounting world, it is important to understand how professionals perceive this rapidly emerging technology. To understand how artificial intelligence is utilized, we survey thirty-four professionals holding accounting positions ranging from staff accountants to partners. We find that a majority of accountants surveyed were at least somewhat interested and at least somewhat familiar with the use of artificial intelligence in accounting. However, the majority of accountants surveyed did not previously use artificial intelligence in their company and a limited number of accountants are currently using artificial intelligence to complete an accounting process and/or task. Regression analysis shows that professionals that have previously tried implementing artificial intelligence and that believe artificial intelligence will be used in accounting in the future are more likely to be interested in implementing artificial intelligence. Additionally, when analyzing the results from partners-only, we find very similar results as the average accountant, they also believe that artificial intelligence will be used in accounting in the future which provides a promising outlook for coming changes in the accounting profession.

JEL: M41, M49

KEYWORDS: Accounting, Artificial Intelligence

INTRODUCTION

Artificial intelligence (AI), along with other recent advancements in technology, has disrupted and revolutionized business processes around the world. AI's implementation in any business process also creates opportunities for accounting to be involved or at least affected by the implementation. It is also natural to assume that companies would look to utilize AI to create better processes within their accounting and/or auditing departments. The topic of AI has certainly caused some controversy in the business world today. Some believe it to be an exceptional addition to a company as it provides accuracy and efficiency in a way that humans are mostly incapable of. Meanwhile, others may view it as an expensive program void of emotion and moral character contributing to the unemployment rate. With a high level of prevalence for disputes, the presence of AI in the workplace is a topic longing to be analyzed. Additionally, in a survey of workers Baker (2017) found that 87% expect parts of their job to be automated in the next five years, ranging from 93% of millennials to 79% of baby boomers. Of those who expect automation, 80% anticipate more opportunities than challenges in how automation will impact their work experiences

in the next five years. The purpose of this paper is to determine if artificial intelligence has become a popular tool utilized by corporations and/or accounting firms around the Southwest Florida region.

The earliest signs of AI dates back to the time of Hephaestus, a blacksmith, in Ancient Greek mythology. Hephaestus constructed systems such as wheelchairs and "manufactured mechanical servants" ("A Brief History of AI," 2017) with human-like qualities and their own purposes. In the mid-twentieth century, the term AI was officially created by John McCarthy (McCarthy, 2007). Between that era and today, intelligence systems have been programmed to successfully operate in industries such as auto and entertainment and are now considered AI. Robotic (bots) machinery has taken on innovative and original tasks perceived to be handled mainly by humans. Now we are on the verge of self-driving automobiles and airplanes becoming mainstream. As AI becomes more prevalent in business operations one would expect that accounting and audit departments would find ways to utilize this technology to increase their efficiency and effectiveness. As in the past, Big 4 accounting firms are typically at the forefront of early adopters when new disruptive innovations occur in accounting. Recent studies indicate that this is still true today with the Big4 accounting firms utilizing AI technology to help facilitate the completion of audits and also providing AI advice and tools to their accounting clients through their consulting services (Dowling and Leach 2014, KPMG 2017, 2020). Previous literature also finds that the research in the field of AI has been predominantly focused on industry use with some discussion of how it can be used in accounting. Grey et. al. (2014) finds that research in the use of AI in accounting has waned since the 1990's and specifically calls for much more research on the usability, and use, of artificial intelligence techniques in accounting domains. Sutton et. al. (2019) contradict this finding and state that AI applications continue to gain traction in both accounting research and accounting practice. Our research question adds to the literature as we are considering if the accounting field has taken the next step in the evolution of AI use. The remainder of the paper is organized as follows. The next section examines the related literature. We then describe our data and methodology and discuss the results of our empirical tests. Next we discuss a path forward and the final section concludes.

LITERATURE REVIEW

Accounting is considered to be an artificial science because of its human activity and AI is concerned with human activity (Gouws, 1997). Accounting can be looked at as a perception of reality, which is why it aligns symmetrically with the idea of AI being integrated with its process. AI, also referred to as an "expert system", has been making headlines in the field of accounting. Although much is of speculation, the capabilities of expert systems are rapidly growing as more companies see the potential benefits. The goal of AI is to closely recreate human activity and decision-making (Qureshi, Shim, & Siegel, 1998). With the ability to replicate human activity, over time an expert system can become more knowledgeable by learning different processes and more efficient methods of presenting information (Moudud-Ul-Huq, 2014). The result of this "expert system" or "learning machine", is the ability to provide more accurate decisions. The expert systems can also gain more knowledge about different problems that may occur and adjust the outcome based on historical situations. There are two types of expert systems that can be applied to accounting: Rule Based expert systems and Case Based expert systems. Rule Based expert systems commonly provide conclusions based on input data, similar to an "IF, THEN" scenario. Case Based expert systems more commonly use reasoning, a basic form of human reasoning, and make designs based upon historical outcomes (Qureshi, Shim, & Siegel, 1998).

Applications of expert systems within accounting can be found in auditing, accounting standards, taxation, and management and control. Additionally, the capabilities that expert systems have could potentially be used in nearly every part of the internal auditing process (Flesher, & Martin, 1987). For example, AI is being integrated in most of the Big4 accounting firms' services. KPMG has recently launched its KPMG Ignite program, a portfolio of AI aimed at increased efficiency and service quality. Ignite includes AI developments that are aimed towards speeding up internal processes such as IT implementation and

analytics (KPMG 2017). KPMG, like most accounting firms, is still heavily involved in the prototype stage of AI. Even though KPMG is in the testing phase of AI implementation, they plan on practical implementation in the future. Additionally, Deloitte utilizes AI technology to comb through hundreds of thousands of legal documents to look for changes in control provisions during a client's sale of a business unit. A process that can take up to six months, can be completed within a month with the help of AI technology. Finally, Ernst & Young (EY) uses AI to review lease accounting standards, making the process more accurate and efficient (EY 2017). These large accounting firms are setting a standard for technology utilization, which is breaking ground for more accounting companies to do the same. With the efficiencies that AI provides it follows that it can also assist in areas where there are shortages of experienced individuals to accomplish the work. Jones (2016) identified a potential shortage in accounting professionals due to less people pursuing a degree in accounting. Implementing AI can fill this potential gap in demand for accountants. Expert systems can allow the accounting profession to keep pace with the ever-changing profession because they can grow together. The implementation of AI should not be discouraged by people in the profession.

DATA & METHODOLOGY

The data for this study is based on survey responses received from thirty-four professionals in the field of accounting. The surveys were administered during three professional meetings held by the Florida Institute of CPA's (1/17/18), the Accounting Advisory Council at Florida Gulf Coast University (1/19/18) and the Institute of Internal Auditors (2/6/18). Participation in this study was anonymous and voluntary; the participation rate was 48.6%. Professionals that participated in the study held positions ranging from staff accountants to Chief Audit Executive (CAE)/Partners. Further, participants represented varied areas of accounting including tax, internal/external audit, financial accounting, and education. Our survey (see Appendix A) first addresses individual and firm characteristics (see questions 1-9 on the survey). The remaining questions (see questions 10-21), are aimed at discovering the accounting professional's current interest, usage, and familiarity of AI. Participants chose their level of interest on a scale of *Very interested, Interested, Somewhat Interested,* and *Not Interested*. Their level of familiarity was measured on a scale of *Very Familiar, Familiar, Somewhat Familiar, and Unfamiliar*. Usage was measured using *yes* or *no* questions. Our informational analysis will help estimate the future implementation of AI in the accounting profession.

RESULTS

Full Sample - All Accounting Professionals Surveyed

We begin by analyzing the complete sample of accounting professionals that completed the survey questionnaire. Below we discuss descriptive results of interest (based on question #14 on the survey), familiarity (based on question #10 on the survey), and usage (based on question #16 on the survey) of AI. Analysis of the INTEREST_IV variable reveals that 85% of accountants from all fields are at least somewhat interested in the use of AI in accounting (see Table 1, Panel A**)**. The number of accountants who are somewhat interested in AI suggests that AI is getting attention from all areas of accounting. Out of the professionals who are least somewhat interested, 15% of them are very interested (not tabulated). The larger accounting firms are also showing interest in AI through their recruitment of students and professionals who have a strong AI or data analytics background. AI also receives attention from online accounting websites such as Accounting Today, which states, "Accountants need to up their game when it comes to using technology…" (Hood, 2017). The word 'use' is important in this quote because the usage differs greatly from interest in AI. Interest alone will not implement new technology into accounting processes; professionals need to be familiar with technology to be able to use it in their business. With respect to the FAMILIAR_IV variable, our analysis shows that 91% of the accounting professionals surveyed were at least somewhat familiar with AI (see Table 1, Panel B). Our interpretation of the data suggests that most

accounting professionals have heard of AI before and have a basic understanding of how it operates. Is this level of familiarity enough to implement the technology in the accounting process? Of the people who were somewhat familiar with AI, 12% are very familiar with AI (not tabulated). As accounting professionals become more familiar with AI, we can expect to see an increase in its usage. Thus far we have seen that the majority of accountants surveyed were at least somewhat interested and at least somewhat familiar with the use of AI in accounting. However, the majority of accountants surveyed have not previously used AI in their company. Out of the accountants we surveyed, only 24% (USED_IV variable) of them used AI in the past (see Table 1, Panel C). Furthermore, 32% (USING_IV variable) of accountants use AI in their current accounting process. This slight increase in use may be due to the current advancements in AI. The evidence here appears to demonstrate that the idea of implementing AI is more popular than the practical implementation of it.

Table 1: Percentage Results in Interest, Familiarity, and Usage in AI - All Accounting Professionals Surveyed (n=34)

Variable	Value=1	Value=0
Panel A: Interest in ai (Question #14)		
INTEREST_IV	85%	15%
Panel B: Familiar with ai (Question #10)		
FAMILIAR_IV	91%	9%
Panel C: Usage of ai (Question #16)		
USED_IV	24%	76%
USING_IV	32%	68%

Notes: [a]*This table shows the percentage response of all accounting professionals surveyed with respect to their interest (Panel A), familiarity (Panel B) and usage (Panel C) of AI. [b]Variables are defined as follows: INTEREST_IV=an indicator variable equal to 1 if participants responded Somewhat Interested, Interested, or Very Interested to Question #14 on the survey, and 0 otherwise. FAMILIAR_IV= an indicator variable equal to 1 if participants responded Somewhat Familiar, Familiar, or Very Familiar to Question #10 on the survey, and 0 otherwise. USED_IV =an indicator variable equal to 1 if participants responded Yes to Question #17, and 0 otherwise. USING_IV =an indicator variable equal to 1 if participants responded Yes to Question #16, and 0 otherwise.

We next examine what cross sectional attributes impact interest and familiarity with AI (see Table 2). We test to see if there are differences with respect to: years of experience in the field of accounting (Exp 0-10 yrs vs. Exp > 10 yrs), tax work professionals vs. nontax work professionals (Tax vs. Non-Tax), audit work professionals' vs non-audit work professionals (Audit vs. Non-Audit), and small firms with less than 100 employees' vs larger firms (Small vs. Non-Small). For this purpose, we define the variable INTEREST as a value ranging 0-3 corresponding to question #14 on the survey as follows: Not Interested=0, Somewhat Interested=1, Interested=2, and Very Interested=3. FAMILIAR is defined as a value ranging 0-3 (based on question #10 on the survey) where: Unfamiliar=0, Somewhat Familiar=1, Familiar=2, and Very Familiar=3. We find that the mean score for INTEREST is statistically higher for accounting professionals with experience of 10 years or less in industry (2.8) than the mean score of those with experience greater than 10 years (1.3) (see Table 2, Panel A). This finding may not be surprising given that new technologies are usually driven by younger professionals. Interestingly, the mean scores for both INTEREST (Panel A) and FAMILIAR (Panel B) under all other attributes examined did not show a statistically significant difference between groups. A potential explanation for this is that AI is at a very early stage in the field of accounting and any cross-sectional differences in interest and familiarity will possibly be seen once this technology is more readily implemented.

Table 2: Mean Scores in Interest and Familiarity in ai by Differing Attributes - All Accounting Professionals Surveyed (n=34)

Variable	Mean Score (A)	Mean Score (B)	Test of Difference p-Value
Panel A: INTEREST (Question #14)			
Exp 0-10 yrs Exp >10 yrs	2.8	1.3	0.001 ***
Tax Non-Tax	1.9	1.3	0.125
Audit Non-Audit	1.8	1.4	0.312
Small Non-Small	1.5	1.6	0.860
Panel B: FAMILIAR (Question #10)			
Exp 0-10 yrs Exp >10 yrs	1.4	1.2	0.598
Tax Non-Tax	1.1	1.3	0.459
Audit Non-Audit	1.1	1.3	0.441
Small Non-Small	1.4	1.1	0.264

Notes: [a]This table shows the mean score of all accounting professionals surveyed with respect to their interest (Panel A) and familiarity (Panel B) with AI by the following attributes (experience level, tax professionals, audit professionals, and size of firm). [b]Variables are as defined as follows: INTEREST = a value ranging 0-3 corresponding to question #14 on the survey as follows: Not Interested=0, Somewhat Interested=1, Interested=2, and Very Interested=3. FAMILIAR = a value ranging 0-3 (based on question #10 on the survey) where: Unfamiliar=0, Somewhat Familiar=1, Familiar=2, and Very Familiar=3.[c] *** indicates statistical significance at the 1 percent level.

The preceding results show that the majority of accounting professionals are at least somewhat interested in AI (85%) and at least somewhat familiar with AI (91%). Survey responses demonstrated that the interest in AI is higher for accounting professionals early in their career (those with work experience of 10 years or less). Additionally, it appears as if very few accounting professionals have actually used AI in the past (24%). A natural question that follows is: what factors make accounting professionals more interested in implementing AI in the future? For this purpose, we estimate the following regression:

$$INTEREST = \beta_0 + \beta_1\,FAMILIAR + \beta_2\,IMPLEMENT + \beta_3\,USING + \beta_4\,WILL\_USE + \beta_5 OTHER\_USE + \beta_6\,SIZE \tag{1}$$

The variable INTEREST and FAMILIAR are as previously defined. IMPLEMENT (USING) [OTHER_USE] is an indicator variable equal to 1 if the response to question #17 (#16) [#18] is Yes, and 0 otherwise. WILL_USE is defined as a value ranging 0-3 (based on question #13) where: Unlikely=0, Somewhat Likely=1, Likely=2, and Very Likely=3. Finally, SIZE is defined as a value ranging from 1-3 corresponding to question #2 on the survey, where Small=1, Medium=2, and Large=3. Given that 3 surveys had some missing data needed to estimate the regression, the sample size is reduced to thirty-one observations for the regression estimates. Results from the regression analysis show that two main factors influence interest in implementing AI in the accounting profession (see Table 3). The significantly positive coefficient on IMPLEMENT (p-value 0.004) evidences that those professionals that have previously tried implementing AI in their business are more likely to be interested in implementing AI in the future. Further, a significant and positive relationship on WILL_USE (p-value 0.010) demonstrates that professionals that believe AI will be used in accounting in the future are also more interested in implementing such technology. No other factors appear statistically significant predictors of interest to implement AI.

$$INTEREST = \beta_0 + \beta_1\,FAMILIAR + \beta_2\,IMPLEMENT + \beta_3\,USING + \beta_4\,WILL\_USE + \beta_5 OTHER\_USE + \beta_6\,SIZE \tag{2}$$

Table 3: Regression Estimates of Interest to Implement AI - All Accounting Professionals Surveyed (n=31)

Variable	Estimated Coefficient	p-Value
Intercept	-0.29	0.573
FAMILIAR	0.18	0.415
IMPLEMENT	1.76	0.004 ***
USING	-0.93	0.118
WILL_USE	0.51	0.010 **
OTHER_USE	-0.02	0.962
Size	0.05	0.756
R2	0.52	
adj R2	0.41	

Notes: [a] This table shows the regression estimates of Interest to Implement AI on independent factors. [b] New variables are defined as follows (all other variables are as defined in previous tables): IMPLEMENT= an indicator variable equal to 1 if the response to question #17 is Yes, and 0 otherwise; USING= an indicator variable equal to 1 if the response to question #16 is Yes, and 0 otherwise; WILL_USE = a value ranging 0-3 (based on question #13) where: Unlikely=0, Somewhat Likely=1, Likely=2, and Very Likely=3; OTHER_USE = an indicator variable equal to 1 if the response to question #18 is Yes, and 0 otherwise; SIZE= a value ranging from 1-3 (based on question #2) where: Small=1, Medium=2, and Large=3.[c] ***, ** indicates statistical significance at the 1 and 5 percent level.

Partners-only Sample – Accounting Partners Surveyed

The president of IFAC, Rachel Grimes, writes "Accountancy profession leaders are firmly focused on technology's opportunities and challenges, and understand that tomorrow's accountants must be fluent in data analytics, and able to pair AI's power and potential with human judgment, skills and our Code of Ethics" (Grimes, 2017). Partners have a direct influence not only on the direction of their company, but also on the decisions made by employees at lower levels. Their perceptions of AI alone may have an effect on strategies and policies implemented, as well as daily tasks in the workplace. So where exactly do these leaders stand on the topic? Our next analysis focuses on the subsample of firm partners based on interest, familiarity, and usage. We also investigate how prevalent they expect AI to be in the future. This subsample is comprised of 14 observations. Given the small sample size, we choose to analyze only descriptive statistics for this subsample. The low sample size compromises the validity of more rigorous statistical testing performed for this subsample. Our data indicates that 79% of partners (as evidenced by INTEREST_IV) are at least somewhat interested in implementing AI in one or more of their business processes, while 21% responded with no interest (See Table 4, Panel A). Out of the leaders who are at least somewhat interested, only one partner stated that they are very interested. These percentages are very similar to the full sample results reported earlier. This suggests that partners are well aware of the rapid increase of technological advancements in the business world. Although the interest in AI appears strong, partners must be willing to familiarize themselves with the concept of AI. On the topic of familiarity, analysis of FAMILIAR_IV shows that 93% of partners are at least somewhat familiar with the concept of AI (See Table 4, Panel B). Of this group, only two partners identified themselves as being very familiar with AI. This information demonstrates that they are willing to or have already challenged themselves to shift their company from a manually-dominated workplace to an automated one. Even with just a basic understanding, leaders have the ability to adjust nicely to the reign of AI with the fresh knowledge of aspiring leaders of the future. An easier transition, however, may depend on whether or not one may have experience. Despite the previous results on interest and familiarity, most leaders do not have a great amount of experience. Only 50% (USING_IV) of partners are currently using AI in one or more of their business processes, while 57% (USED_IV) have not attempted to implement it in the past (See Table 4, Panel C). While it appears as if a limited number of partners have used or currently use AI, 100% (WILL_USE_IV) partners surveyed said it is at least somewhat likely to be used in accounting in the future (see Table 4, Panel D). According to our results, leaders do not appear to be barriers prohibiting accountants from AI usage as leaders have implemented or attempted to implement AI slightly more than the average accountant.

Table 4: Percentage Results in Interest, Familiarity, and Usage in AI - Accounting Partners Surveyed (n=14)

Variable	Value=1	Value=0
Panel A: Interest in AI (Question #14)		
INTEREST_IV	79%	21%
Panel B: Familiar with AI (Question #10)		
FAMILIAR_IV	93%	7%
Panel C: Usage of AI (Question #16)		
USED_IV	43%	57%
USING_IV	50%	50%
Panel C: Future Use of AI (Question #13)		
WILL_USE_IV	100%	0%

Notes: [a]**This table shows the percentage response of all accounting partners surveyed with respect to their interest (Panel A), familiarity (Panel B), usage (Panel C), and likelihood of future use (Panel D) of AI.* [b]*New variables are defined as follows (all other variables are as defined in previous tables): WILL_USE_IV= an indicator variable equal to 1 if participants responded Somewhat Likely, Likely, or Very Likely to Question #13 on the survey, and 0 otherwise.*

A Path Forward

AI is the new disruptor for many industries so it is important to understand the entire scope of AI before becoming skeptical of its capabilities. It's palpable to fear a machine's ability to take away jobs from humans or to entirely replace the human race, but it is unlikely. While AI might take over certain processes in business, it will create new processes as a result. It is also important to recognize the skill shortage we are currently facing in the field of accounting that will need to be addressed through utilizing more efficient processes. At this point in time, AI is showing professionals a positive preview of the future. Although we find that many of the local accountants have not used AI in the past and some are utilizing it now to accomplish accounting processes, it is apparent based on other industries that this will change in future. Auditing processes are a prime example of where repetitive and mundane tasks are prevalent and the very nature of completing the audit is very rule-based, which both lend themselves to automation. The value of implementing AI is the potential improvement both in efficiency and effectiveness of the audit which ultimately will benefit the audit client through lower audit fees. This notion of automation of the audit processes is supported by a case study performed by Cohen et. al. (2019). Their research in the use of Robotic Process Automation (RPA) to streamline moving data from one software tool to another and performing the audit test indicates that automation improves efficiency and effectiveness to the audit process. As is usually the case, we expect that it will be the Big 4 accounting firms who will lead the way on how AI will be utilized in the accounting field. With this said, we are currently seeing an increased interest by the larger firms to implement AI in their audit processes. Our review of KPMG articles on AI indicates that they are not only utilizing AI in many different ways to facilitate the completion of client audits but they are also building tools that they can offer to their accounting clients to help make their jobs more efficient and effective (Gusher-Thomas 2020; KPMG 2020). At this time the biggest hurdle for the smaller accounting firms and companies is cost. Like with the implementation of the ERP systems in the 1990's, as the costs become more manageable others in the industry will adopt AI (Joshi 2017). The one caveat is where will government regulation intercede in the use of AI? At one end of the spectrum some feel that AI is the most important tool and it should be allowed to evolve to its ultimate potential. At the other end of the spectrum some may feel that AI will take over for all human activity and the world at large where humans will be working for machines so government intersession is inevitable. As pointed out by User Grasser (2017), when lawmakers and regulators start to tackle the tough questions about AI they need to look at AI not as a homogenous technology, but as a set of techniques and methods that will be deployed in specific and increasingly diversified applications. Grasser further states that at its core AI has potential legal and regulatory issues from questions around bias and discrimination of AI-based applications, security vulnerabilities, privacy implications of such highly interconnected systems, conceptions of ownership and

intellectual property rights over AI creative works, and issues related to liability of AI systems, with intermediary liability perhaps at the forefront. These issues will need to be addressed in the future and may have implications for how AI is used in the accounting field.

CONCLUDING COMMENTS

The purpose of this paper is to determine if artificial intelligence has become a popular tool utilized by corporations and/or accounting firms around the Southwest Florida region. To understand how artificial intelligence is utilized, we survey thirty-four professionals holding accounting positions ranging from staff accountants to partners. Results for our overall sample show that the majority of accountants surveyed were at least somewhat interested and at least somewhat familiar with the use of AI in accounting. However, only a small portion of accountants surveyed have actually used AI in their company. We also find that interest in AI is higher for accounting professionals earlier in their careers. Our regression analysis reveals that professionals that have previously tried implementing AI and that believe AI will be used in accounting in the future in their business are more likely to be interested in implementing AI in the future. Our partners only analysis shows that similar to the overall sample, a large proportion of partners are also interested and familiar with AI. It appears as if most partners are aware of the capabilities of AI but show hesitation in its practical implementation, evidenced by the low percentage of partners that have actually used AI in the past. Lack of technical knowledge, fear of security risks, and large overhead expenses are some of the potential reasons partners have not implemented AI in their accounting processes.

We suspect that partners will increase usage of AI when more professionals acquire technical knowledge in AI and implementation costs decrease. One limitation of our paper is that we conducted the survey only in Southwest Florida, so the results may not be generalizable across the whole United States. Additionally, the respondents on our survey were from smaller regional accounting firms and corporations so the results are also not generalizable to the larger Big4 accounting firms or those that were previously considered tier II firms. Future research could address these issues with a larger more comprehensive survey population. Because of the current advancements in AI, accounting firms can use AI technology for analytics and other internal processes. This can be an alternative to outsourcing analytics if the present value of the implementation is less than that of outsourcing. As the development of AI continues, firms will have the option to have the expert system make decisions on their behalf. It is important to understand the entire scope of AI before becoming skeptical of its capabilities. It is tempting to fear a machine's ability to take away jobs from humans, but it is unlikely. While AI might take over certain processes in business, it will create new opportunities as a result. It is also important to recognize the skill shortage we are currently facing in the field of accounting and how AI can mitigate this issue. At this point in time, AI is showing professionals a positive preview of the future.

APPENDIX A: Survey Tool

Artificial Intelligence

1. What Industry/service sector is your company/firm in (select all that apply)?

☐ Taxation

☐ Auditing

☐ Management Consulting

☐ Financial Accounting

☐ Other (please specify)

[ ]

2. What is the size of your company/firm?

○ Small (Less than 100 employees)

○ Medium (100-500 employees)

○ Large (More than 500 employees)

3. What is the range of your most recent level of yearly gross revenues for your company/firm?

○ Less than $500,000

○ $500,000- $5,000,000

○ $5,000,000 to $10,000,000

○ More than $10,000,000

4. What is your position in the company/firm?

○ Manager   ○ Partner

○ Assistant Manager   ○ Staff/Assistant

○ Director

○ Other (please specify)

[ ]

5. How many years have you worked in this company/firm in the position referred to in the previous question?

○ Less than 1

○ 1-5

○ 5-10

○ More than 10

6. How many years have you worked in this company/firm for all positions held?

- ○ Less than 5
- ○ 5-10
- ○ 10-15
- ○ More than 15

7. How many years have you worked in the accounting industry (all positions held)?

- ○ Less than 5
- ○ 5-10
- ○ 10-15
- ○ More than 15

8. What certifications do you hold?

- ☐ CPA
- ☐ CFA
- ☐ CMA
- ☐ EA
- ☐ Other (please specify)

[_____]

9. What is your gender?

- ○ Male
- ○ Female

10. How familiar are you with artificial intelligence (AI)?

Unfamiliar	Somewhat Familiar	Familiar	Very Familiar
○	○	○	○

11. On a scale of 1 to 10, how effective do you believe AI is in the field of accounting? (1-not effective, 10-very effective)

1	2	3	4	5	6	7	8	9	10
○	○	○	○	○	○	○	○	○	○

12. How likely are you to implement AI in your company's business or accounting process?

Unlikely	Somewhat Likely	Likely	Very Likely
○	○	○	○

13. How likely do you think AI will be used in accounting in the future?

Unlikely	Somewhat Likely	Likely	Very Likely
○	○	○	○

14. How intereted are you to implementing AI in your office

Not Interested	Somewhat interested	Interested	Very Interested
○	○	○	○

15. Do you think AI will have a future impact in your job position or other positions in your office?

○ Yes

○ No

16. Are you using AI in any of your business or accounting processes?

○ Yes

○ No

17. Have you previously tried implementing AI in your business or accounting processes?

○ Yes

○ No

18. Do you know of other companies that are using AI?

○ Yes

○ No

19. Do you think companies are implementing AI because of the projected shortage in labor in Accounting?

○ Yes

○ No

20 What is/are your reasons(s) for using AI (select all that apply)

☐ It's reliable/dependable   ☐ It's contemporary/trendy

☐ No bias for analysis   ☐ It's an efficient use of resources

☐ Implementation reduce expenses (i.e. wages, liability insurance)   ☐ Not applicable

☐ Other (please specify)

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21. What is/are your reasons(s) for not using AI? (select all that apply)

☐ High costs

☐ Difficult to implement

☐ Security risks

☐ Fear of job loss

☐ Lack of technical knowledge

☐ Other (please specify)

[   ]

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