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Understanding the Importance & Impact of Technology in an Accounting Setting

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Abstract

Although accounting has gone through significant changes over the years due to technological advancement, the profession remains at the core of business. Technology has not only impacted the accounting profession, but has completely transformed the business world. As professionals are continuously introduced to new technology platforms, their ability to analyze and interpret data is enhanced. The research presented in this paper seeks to understand which platforms are leading the way for change within the accounting profession. More specifically, this paper explores which platforms professional accountants perceive as most important to their job. This involves understanding which platforms they perceive themselves as having the most knowledge in using, as well as the platforms they believe they use most as a part of their job. To conduct this research, a survey was sent to participants believed to be currently working at an accounting firm. The results of this survey were analyzed based on certain controls. These controls include public accounting service focus, firm size, and position held at the firm. This helps to determine if there are any differences in the importance and impact of technology platforms based on these controls.

The results of the study show that Microsoft Excel, Skype, CaseWare IDEA, other Microsoft tools, Tableau, and Quickbooks are perceived as the most important to an accountant's job. The identification of these platforms as being important, help show how the jobs of accountants are changing. These platforms allow accountants to spend more time analyzing the data they are working with, which in turn helps them to make more informed decisions.

Keywords: Accounting, Technology Platforms, Education, Training, Data Analysis, Survey Methodology

Table of Contents

Introduction

How can a profession built on strict guidelines adapt to the continuous technological advancements of our modern business world? Technology has completely transformed our business world for the better; however, with the continued emergence of technology there comes a possibility of changes in the jobs of professional accountants. In fact, tedious tasks, such as data entry and data extraction, have already been eliminated by advanced technologies. The elimination of day-to-day tasks has been beneficial to accountants, as it allows them to use their time in a more efficient way. Even though some accountants still worry that the continued increases in technology and artificial intelligence will soon take over a majority of their jobs, this is not necessarily the case. This paper investigates the use of technology among professional accountants.

While exploring how technology has already brought about change to the traditional accounting processes, this paper also discusses the future of the accounting profession. The accounting profession is broken up into different services, with professionals focusing in different areas. Many of the accounting services have already been positively impacted by technological changes and will continue to be impacted into the future. With technological change comes a need for increased training and learning. This paper discusses how it is important that students studying to be accountants have an analytical background. The importance of having analytical skills could mean that the CPA Exam will face changes. Making sure new hires are coming in which knowledge of using different technology platforms will be crucial for accounting firms going forward. This paper also points out how firm provided training is important to prepare employees on how to use new platforms. It is not possible for all

current employees to know how to use new, emerging technology platforms. Making investments now will provide benefits for these firms into the future.

In addition to discussing the current and future state of the profession, this paper takes a closer look at which technology platforms are used by professional accountants, how well accountants know how to use certain platforms, and how often they use them as a part of their job. Additionally, this paper will explore how the use of these platforms varies based on public accounting service focus, firm size, and position held at the firm. The results of this study will help provide accounting stakeholder groups with a better understanding of the impact of technology on an accountant's job, as well as how well accountants are adapting to technological changes.

Literature Review

Current State of Accounting Profession with the Usage of Technology

With the continuous introduction of advanced technologies into today's business world, accountants are constantly reminded that those technologies will soon bring profound changes to the work that they do. This means that accounting firms may be structured differently in the future, the work that professional accountants do may change, and there may be different required skills needed to become a professional accountant. While professionals are concerned about the changes that might occur in the near future, they often forget to look back on how the professional has already changed. Over the past decade, the use of technology has been successful in automating data inputs. This involves automating the processing of expenses and bills, the inputting of information into the general ledger, as well as the reading of tax source

documents (Tysiac & Drew, 2020). Technology has simplified practices for both accountants and their clients with the introduction of more advanced software.

In recent years, accountants have started to do most of their work online. For instance, accountants are able to communicate and perform numerous services for clients online. A major reason for increased productivity at accounting firms can be traced to the use of cloud technology. Cloud technology allows accountants to have access to large amounts of shared client data. The cloud's ease of scalability, cost efficiency, and flexibility are the main reasons for its use (Whitmire, 2018). While cloud accounting has changed the accounting processes, with automation, it has started to change the skills that accountants must have. Today, professionals are able to set themselves apart by proving that they can adapt and use new technology platforms, thus increasing their ability to capitalize on important critical and analytical skill sets. Being able to adapt to change gives professionals a higher chance of being hired or promoted. Although technology has already brought significant changes to the profession, it will continue to change the profession in new ways in the future.

Future State of the Accounting Profession with Advances (Changes) in Technology

There have been numerous research articles published in recent years (e.g., *2020s Vision: Tech Transformation on Tap* and *CPAs Advance Their Careers Through the Cloud)* discussing the significance of increases in technology and its impact on the accounting profession. Even though some professionals are fearful that their jobs will be taken away due to advanced technology, this is not necessarily the case. One professional accounting service that will be impacted by advancements in technology is the audit, or assurance, practice. An auditor's job is to verify the validity and legality of the financial statements and accounts of an organization or individual. The audit function is not going to go away; however, it will change dramatically. This

means that the jobs of audit professionals are going to move towards spending more time completing higher-valued advisory work (Tysiac & Drew, 2018). Almost all areas within the overall profession will face changes in coming years. For example, advanced algorithms may soon eliminate the use of sampling in audit practice. If advanced platforms, such as those with robotic process automation or artificial intelligence, are able to access and analyze full, unstructured data sets, auditors will be able to present real-time financial insights. In fact, automated processes like this will be beneficial for the audit practice. Automated processes will be most helpful in taking over tasks that are repetitive, tedious, and require no judgement from auditors. Auditors will then be able to spend time using their knowledge to make judgements and conclusions about data (Vasarhelyi & Rozario 2019). This will make the audit process more efficient and reduce the risk of mistakes. Auditors will have more time to perform complex tasks, such as investigating accounting anomalies, improving the overall effectiveness of the audit (Cohen et al., 2019).

Not only will auditors be affected by increased technology change, tax professionals will also see changes in tax preparation. A tax professional's job involves filling and signing off on the tax returns of their client. Their main goal is to develop a way to minimize the tax owed by their client, which could be a business entity or an individual. Tax professionals have already experienced some benefits from the automation of certain tax calculations and tax return preparation (Tysiac & Drew, 2018). Tax professionals need these advanced tools to ensure that they are providing value to their work. Today, the amount of data available to these professionals is continuously growing. Having to spend all of their time reviewing and filing tax forms and payments, takes away the time that the tax professionals could be spending analyzing data and providing more informed insights. Additionally, taking the time to analyze the data at hand

reduces the risk of any mistakes. Tax professionals have already been impacted by automated processes and artificial intelligence. Robotics and artificial intelligence have already allowed tax professionals to spend less time focusing on tax information, and more time strategically thinking and planning (Allen, 2019). The idea of big data is not new to tax professionals, as their jobs have always involved analyzing data. However, with the increase in the amount of data available automation and artificial intelligence will help professionals provide insight that is more accurate.

Another professional accounting service that benefits from advances in technology is that of consulting and advisory. Accountants specializing in these service areas work to advise clients on their financial decisions with a goal of improving their accounting systems. It is important for these professionals to have a base of analytical knowledge, as some of their work may require helping with decisions that involve large amounts of data. Knowing how to use and understand the technological platforms of the client's business is crucial to make informed decisions. Many firms today provide technology consulting services. As clients continue to look toward technology to improve business processes, reduce costs, and maximize opportunities, accountants must be able to provide technological advice to their clients. Accounting professionals know that their clients, similar to all people today, rely on technology to make things easier. With the continued emergence of digital tools, there is an increase in the opportunities consultants have to contribute to client success (Crosley, 2017). It is possible that the consulting practice will start to take more of a lead role in accounting services. As clients recognize the ability of accountants to provide ongoing technological advice, they will start to seek more help. Technology will not only continue to change the way accountants do their work, but it will also change the skill sets of accountants that are filling these roles.

Shift in Skill-Set of Professional Accountants

Accounting firms have already begun to look towards the future of the accounting profession when hiring new employees. While it is important for them to have basic accounting knowledge, firms have recognized the importance of new hires also having strong analytical, decision making, and innovative skills. Accounting professionals working in all service areas now have more time to work on analyzing and interpreting data. It is necessary that accounting professionals have the necessary skill set to be able to provide higher value analysis.

An accountant's job involves helping to define a problem, identifying how a decision will be made, and acquiring the information needed to make that decision. Recognizing the information that must be acquired or created has always been a part of an accountant's job. However, as we move into the future, accountants may have access to more data. It will be necessary for accountants to recognize what information is relevant to use in varying situations, to avoid there being too much, or non-relevant, information (Hecht, 2018). Once accountants have determined what information is relevant, it is important for them to have awareness and understanding of different software applications. Technical and analytical skills are crucial in understanding and analyzing the information. As it is important for them to understand the challenges and potentials of platforms, it is critical that accountants have strong communication skills. Accountants act as the main point of contact between the firm's decision makers and the client, which means that it is important for them to be able to accurately communicate and understand the data they work with. This may mean that accountants will need to understand how to share and interpret data online, making it more important that they know how to use and communicate with the client this way. Lastly, it is essential for accountants to constantly learn and apply their knowledge to scenarios characterized by uncertainty.

While a professional may be hired with knowledge of certain platforms, within a few years a new platform may become more relevant. It is currently uncertain how much the profession will change, and which technologies will cause this change. Accountants must have the ability to accept these changes or challenges they may face and be able to quickly adapt to new technologies. An understanding of technology is built on experience. The more experience a professional has using a wide range of platforms; the easier it will be for them to grasp a new technology. Additionally, it would not be extremely beneficial for firms to start hiring individuals that only specialize in computer systems or analytics. It is most important that professionals understand the accounting processes, which will make it easier for them to understand how the process can be adapted with new platforms (Drew, 2018).

Future of the CPA Examination and Accounting Education

As advances in technology have changed the skills required of newly licensed Certified Public Accountants, the American Institute of Certified Public Accountants has started to analyze what information should be included on the CPA Examination. What a newly licensed CPA does has changed dramatically over just a few years, because of the changes that technology has brought to the profession. Understanding the business processes and information systems related to how a business operates is becoming more important. Every six or seven years, a survey is disseminated to determine what tasks are performed by CPAs working at accounting firms in their first two years of employment. These results are used to determine the content on the CPA exam (Zhang et al., 2018). In recent years, the exam changed, as it now includes more task-based simulations. The changes to the exam have also resulted in the addition of questions that assess professional skepticism and judgement. Even though there have also been questions added to the exam that test the ability to analyze audit data, employers believe

there still needs to be more of a focus on technology, data analytics, and automation (Tysiac, 2019). Making sure CPAs have analytical skills when starting at an accounting firm increases their ability to be able to implement emerging technologies into their work for increased business insights (Tysiac, 2019). The main focus of the exam is still on practical skills, as well as comprehension and analysis skills. However, a lot of those skills are needed to perform rule-based or repetitive tasks that will soon be eliminated by automation. It will be important for the exam to introduce more questions that test cognitive skills, as these are the types of skills firms are starting to look for in new hires. The CPA exam is the main driver of what is taught in accounting classes at universities. If the boards of accountancy accept changes to the exam, by including more content based on information technology, accounting students will need to have the necessary knowledge of using platforms.

Advanced analytical platforms have already begun to transform the work done by accountants, and traditional accounting programs do not usually provide graduating students with the specific skills set and/or knowledge required by employers. When newly graduated students start at the firm, employers report that they usually reeducate themselves through the use of online training or firm provided training programs (Zhang et al., 2018). While the CPA exam will soon need to shift to put more of a focus on higher-level skills, it will also be important for university accounting programs to make this shift. While some universities have begun to offer a wide variety of analytics or IT related courses throughout their business school, the accounting program itself may need to consider adding these types of courses to their curriculum. Educators may need to consider finding ways to integrate analytics into otherwise traditional accounting courses. Along with these changes, educators and firm leaders must make sure professionals are best equipped for the future by teaching them to adapt to a continuously changing environment.

Changes in Training and Learning: Investments for the Future

With the introduction of new technology platforms and changes in traditional processes, comes the need for training and learning. It is not possible for employees to understand a new platform and its capabilities in just a few hours. Firms will need to make large time and monetary investments into technology. Making these large investments may seem like a big expense to firms, however, the money spent on technology now will decrease costs spent on manual labor for specific tasks in the future (Tysiac & Drew, 2018). At one point in time, accountants had to learn Microsoft Excel basics and how to implement the platform's benefits into their processes. Today, Excel is a staple in the accounting procession used in assurance, tax, and advisory (Eaton & Baader, 2019). Similar to the implementation of Excel, firms will need to spend time and money finding the best ways to fit new software into their jobs. It is important for accountants to know how to use the platforms they feel are most influential in improving the quality of work that they complete. Along with the need to provide training on the basics of certain platforms, it is important for firms to make investments in providing courses or training that help employees work on leadership skills.

Accountants often fear that advanced technologies, such as artificial intelligence, will leave them without jobs. Instead, when artificial intelligence starts to change the profession, accountants will be given more time to provide a new kind of value (Orenstein, 2017). Potential employees are starting to look more at what firms offer for the professional development of their employees. For example, they look to see if firms are giving their employees the opportunity to work on their soft skills, learn resume-building skills, as well as other work skills (Hood, 2018). It would be beneficial for firms to invest in these types of training programs along with ones that

focus on specific platforms. The future is near, and it is important for firms to make sure their employees are constantly learning and improving to keep up with the pace of technology.

Research Questions

Through conducting a review of literature relating to the increased impact technology has on the accounting profession, questions were developed that guide the current research throughout the remainder of this paper. There is a lot of information regarding the overall impact technology has on the jobs of accountants. For example, it is obvious that technology has helped to eliminate tedious tasks that accountants used to have to spend numerous hours to complete. With the basic knowledge that technology will improve job functions, there is little knowledge on what technology platforms accounting firms are actually using today.

One main topic that is explored throughout this paper helps answer the question of what technology platforms are perceived most important by accounting firms. In addition to understanding which technology platforms are used today, it is important to discover how well accountants know how to use these platforms. Do professional accountants perceive themselves as having a lot of knowledge regarding a platform they view as important to the work that they do? Knowing how to use a platform will allow users to make the most out of its capabilities. Lastly, this paper will inquire about the perceived usage of each of the different technology platforms. Which platforms are transforming the accounting profession the most? Which ones are used most often by accountants as a part of their job? It can be predicted that professionals who spend more time using a certain platform as part of their everyday job will have more of an understanding of that platform or tool. It can also be predicted that professionals holding entry level positions at firms may have a higher level of exposure and/or understanding of certain

platforms due to the integration of basic level analytics classes implemented into the core curriculum at certain business schools and/or due to on-job training.

Method

The study is designed to explore which technology platforms are used by professionals today, and how the knowledge and use of these platforms varies based on certain demographics. A survey method was used to fulfill this research. The survey focused on three main research questions, being the degree to which participants know how to use certain platforms, the degree to which the participants use certain platforms as a part of their job, and which platforms participants perceive as most important.

Participants

An online survey was created using Qualtrics Online Survey Software and distributed via email. The survey was sent out to 185 email addresses of professionals who are believed to be currently working at an accounting firm. The contact information for the participants of this survey was obtained through an email listing provided by the Master of Science in Accounting Program Director at the University of New Hampshire. The email containing the survey was sent to the participants twice. The survey was sent once as an original email, and a second time as a follow-up email. A total of 34 participants responded to the survey, which resulted in an 18.4 percent response rate. Out of the 34 respondents, 73.5 percent of them currently work in public accounting. Of those 73.5 percent that currently work in public accounting 92 percent do work that relates to audit or assurance, 28 percent do work that relates to tax, 24 percent do work that relates to consulting or advisory, and 8 percent do public accounting work that focuses on other areas.

Procedure

Participants were first asked to respond to a set of questions related to their current work experience. The first question asked participants whether or not they currently work in public accounting. If participants responded yes to this question, they were then asked to identify which area of public accounting their work related to. This means that they were asked if their work related to audit or advisory work, tax work, consulting or advisory work, or other work. After answering these questions, participants were asked to identify how long they have been working in public accounting. Lastly, participants were asked to choose the term that best describes their firm size, as well as list their current job title. If participants responded saying that their work did not relate to public accounting, they were asked to specify what type of accounting their work experience relates to. These basic questions related to work experience concluded the first section of the survey.

The next section of the survey focused on the technology platforms that the participants use.[1] The first question is focused on the degree to which the participants know how to use certain technology platforms. Participants were asked to rank how well they know how to use certain technology platforms on a scale of zero to ten. The survey also provided space for participants to add and rank any platform they use in their job that was not provided to them on the list. Participants were instructed that ranking their knowledge of a specific platform as zero would signify that they have little or no knowledge about the platform. Ranking their knowledge a ten, would signify that the participant knows a lot about using the technology platform. Similar to the questions focused on perceived knowledge, the next set of questions focused on how much

[1] The list of technology platforms was developed in a pilot survey sent to several accountants (in various positions) at large, medium, and small accounting firms. The survey asked accountants to provide a list of technology platforms they use as a part of their accounting job.

participants use certain technology platforms. Participants were instructed to indicate the degree to which they use these technology platforms as a part of their job on a scale from zero to ten. The next question in this section asked participants to list five technology platforms that they believe are most important to the work that they do.

The last section of the survey asked participants a series of demographic questions. These questions first asked about the participants' college experience. Participants were asked about their undergraduate and graduate college experiences, as well as whether or not they took any courses while fulfilling these degrees that related to any of the technology platforms mentioned in this survey. Lastly, participants were asked to indicate whether or not they received any on-job training focused on certain technology platforms.

Results

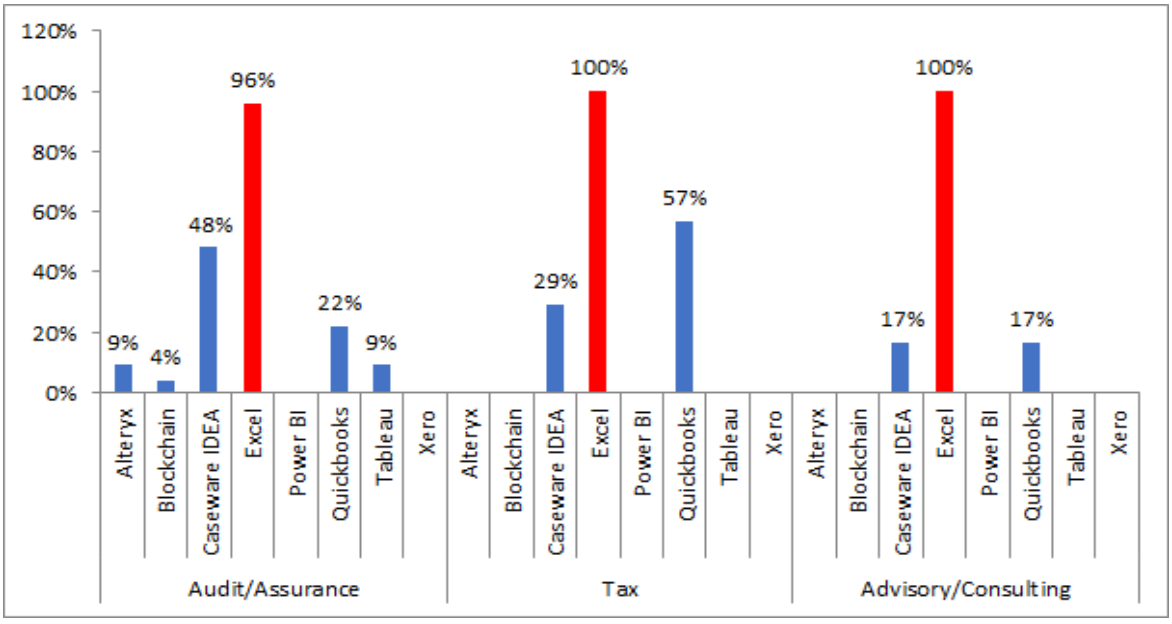
The participants of the survey were asked a series of questions to help gain an understanding of the knowledge and usage of specific technology platforms throughout the accounting profession. The survey contained three different sets of questions based on different technology platforms. The technology platforms that were listed in the survey include Microsoft Excel, Quickbooks, Alteryx, CaseWare IDEA, Tableau, Power BI, Blockchain, and Xero.[1] The participants were asked to rank their knowledge of these platforms on a scale of zero to ten. By ranking their knowledge a ten, this would mean that the participants believe that they are very knowledgeable in using the platform. Rather than analyzing how participants ranked their knowledge of the platforms as a whole, results were broken down into groups to gain a better understanding. This means that results on perceived knowledge were analyzed based on public

accounting service, firm size, and position held at the firm. This helps gain a better understanding of any similarities or differences in knowledge.

Perceived Knowledge of Technology Platforms

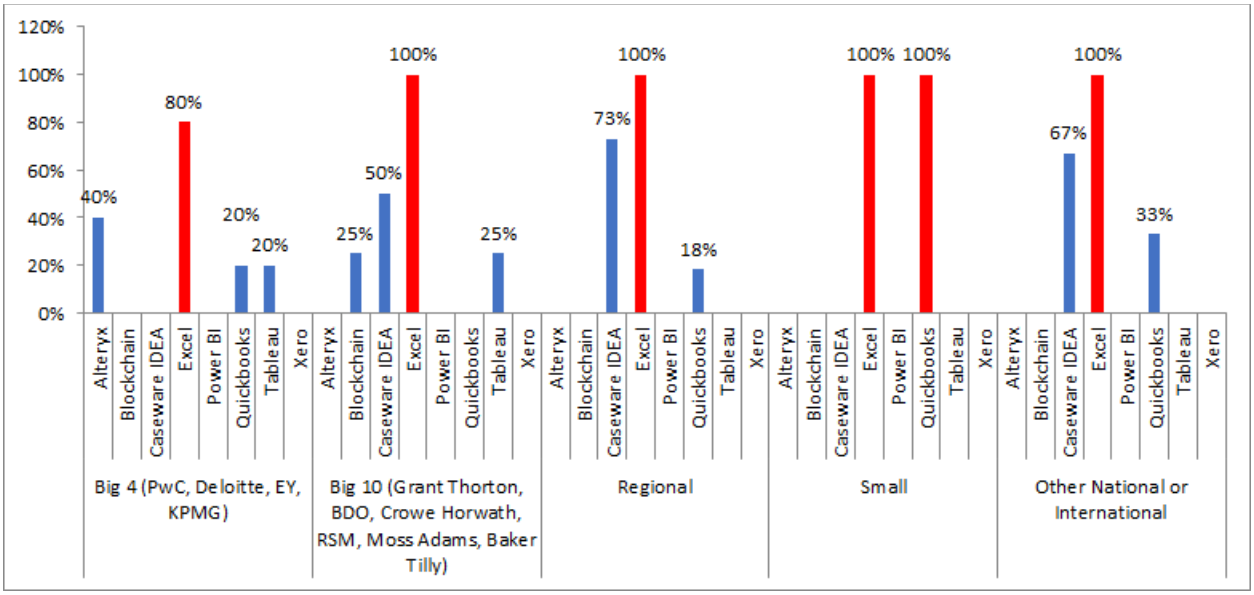
The first set of questions, which related to the participant's perceived knowledge of the stated technology platforms, was first broken down by public accounting service. *Graph 1* below shows the percentage of participants that ranked their knowledge of different technology platforms at a five or above (on a 10-point scale). The reason that the results have been analyzed using the percentage of participants that ranked their knowledge of a particular platform at a five or above, is because those who ranked the platform at a five are indicating that they have a good understanding of using that platform. This, in turn, helps illustrate which technology platforms accountants feel they are proficient in using. The results in *Graph 1* clearly show that participants feel they know how to use Microsoft Excel most, regardless of the service line they work in.

Graph 1: Percentage of Participants that Ranked Their Knowledge of the Platforms as a 5 or Above – Broken Down by Public Accounting Service Line



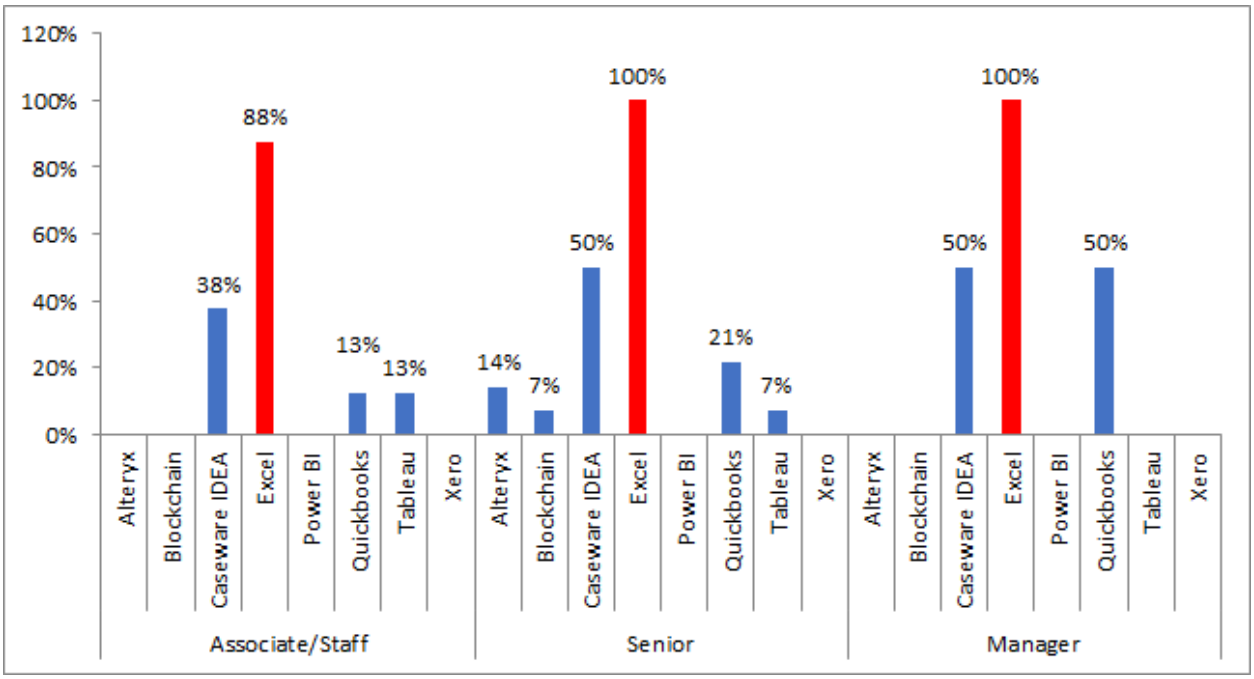
To gain an understanding of how perceived knowledge of technology platforms varied based on the firm size that the participants work at, the results were broken down in a different way. *Graph 2* shows the percentage of participants that ranked their knowledge of platforms greater than or equal to five. Once again, the graph shows that regardless of firm size, participants feel proficient in using Microsoft Excel.

Graph 2: Percentage of Participants that Ranked Their Knowledge of the Platforms as a 5 or Above - Broken Down by Firm Size



Lastly, the results were broken down by position held at the firm, to determine if there are any differences in perceived knowledge. It was previously predicted that accountants holding an associate, or staff, level position at the firm would have perceived knowledge of a larger number of platforms. This is because colleges and universities are already starting to offer more computer systems and analytics based courses. Looking at *Graph 3*, it can be seen that associates and seniors believe they have a high perceived knowledge of more platforms than managers indicated.

Graph 3: Percentage of Participants that Ranked Their Knowledge of the Platforms as a 5 or Above - Broken Down by Position Held at Firm

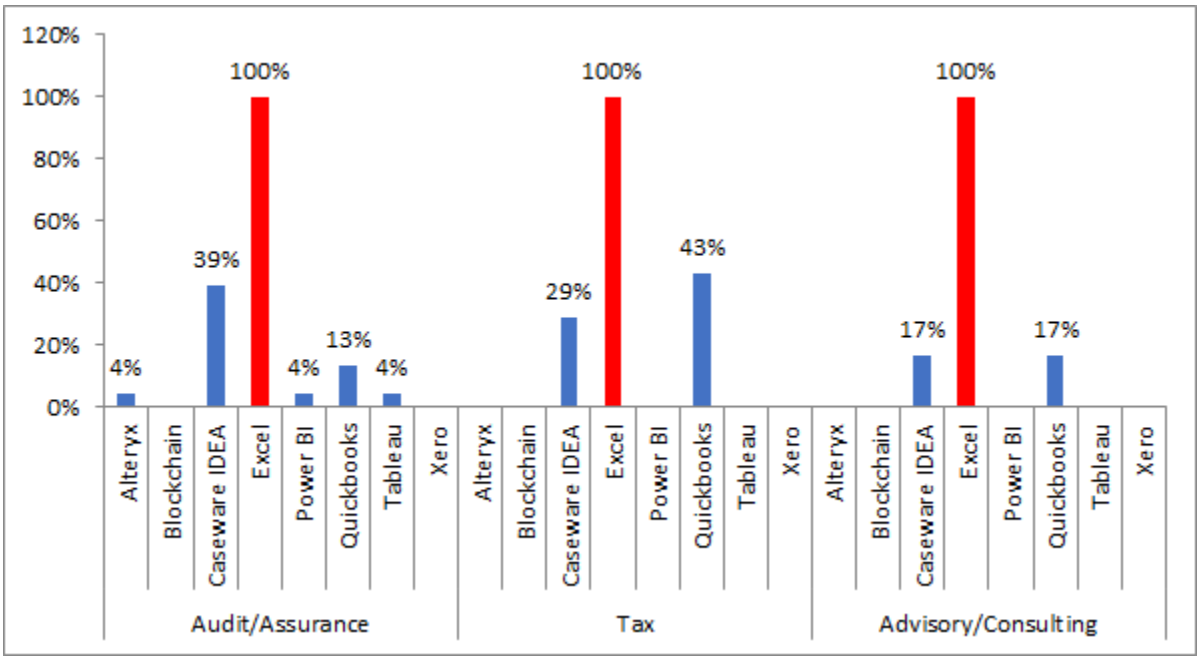


Overall, regardless of public accounting service, firm size, and position held at the firm, results show that the participants' perceived knowledge of Microsoft Excel, CaseWare IDEA, and QuickBooks is very high.

Perceived Usage of Technology Platforms

The second set of questions focused on the perceived usage of each technology platform listed in the survey. Once again, participants were asked to rank their usage of the listed technology platforms on a scale of zero to ten. In order to get a better understanding of how the usage of technology platforms vary between services, the results are broken down by service below. *Graph 4* shows which percentage of participants ranked their usage of the particular platform a five or above.

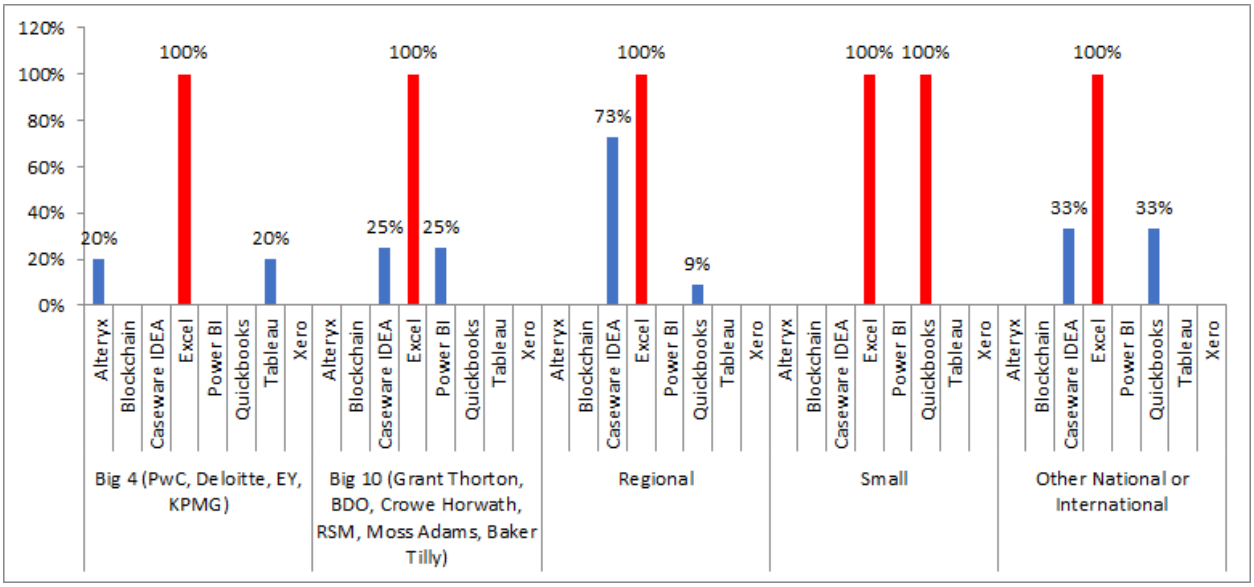
Graph 4: Percentage of Participants that Ranked Their Usage of the Platforms as a 5 or Above - Broken Down by Public Accounting Service Line



Through looking at the percentage of participants who ranked their usage of the platforms listed at five or above, it can be seen that across all public accounting services three main platforms are used. These platforms include Microsoft Excel, CaseWare IDEA, and QuickBooks. For both audit and advisory services, Microsoft Excel and CaseWare IDEA are ranked among the highest as most used. For tax focused participants, Microsoft Excel and QuickBooks are ranked as the most used.

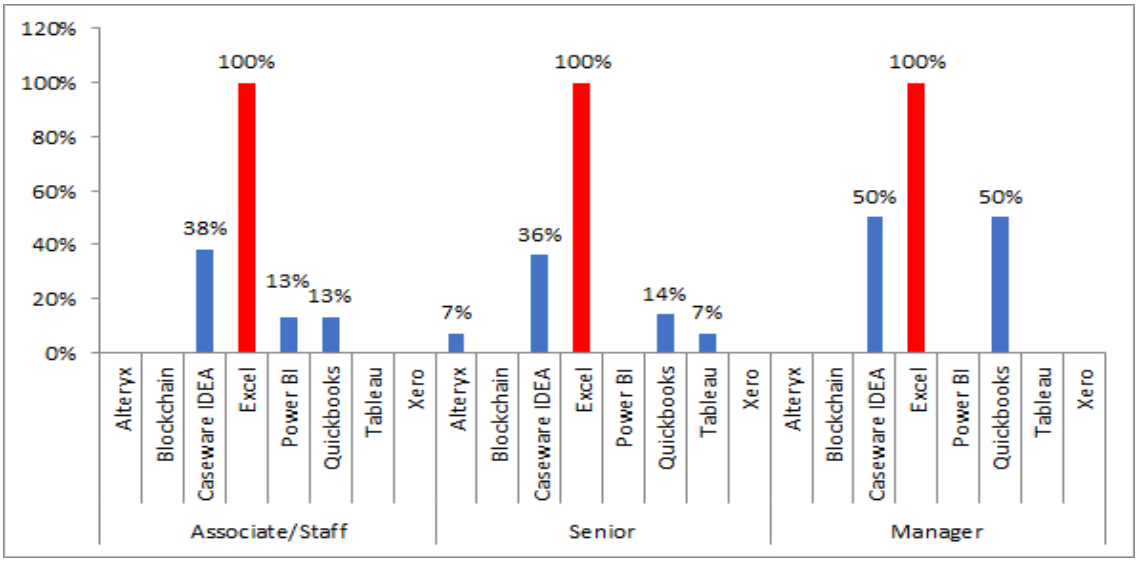
Another way to view the results can be seen in *Graph 5*. In this graph, the rankings of perceived usage are broken down by firm size. The results show that participants working at Big 4 or Big 10 firms have a high usage of Microsoft Excel as part of their job; however, they also use tools such as Alteryx, Tableau, and Microsoft Power BI. Participants working at regional, small, and other national and international firms ranked their usage of Microsoft Excel, CaseWare IDEA, and QuickBooks as high.

Graph 5: Percentage of Participants that Ranked Their Usage of the Platforms as a 5 or Above - Broken Down by Firm Size



Lastly, the participant's scoring of their perceived usage of the listed technology platforms was broken down by position, or level, held at the firm. It can be seen in *Graph 6* that participants at the associate and senior level ranked a larger number of technology tools at a higher level of usage.

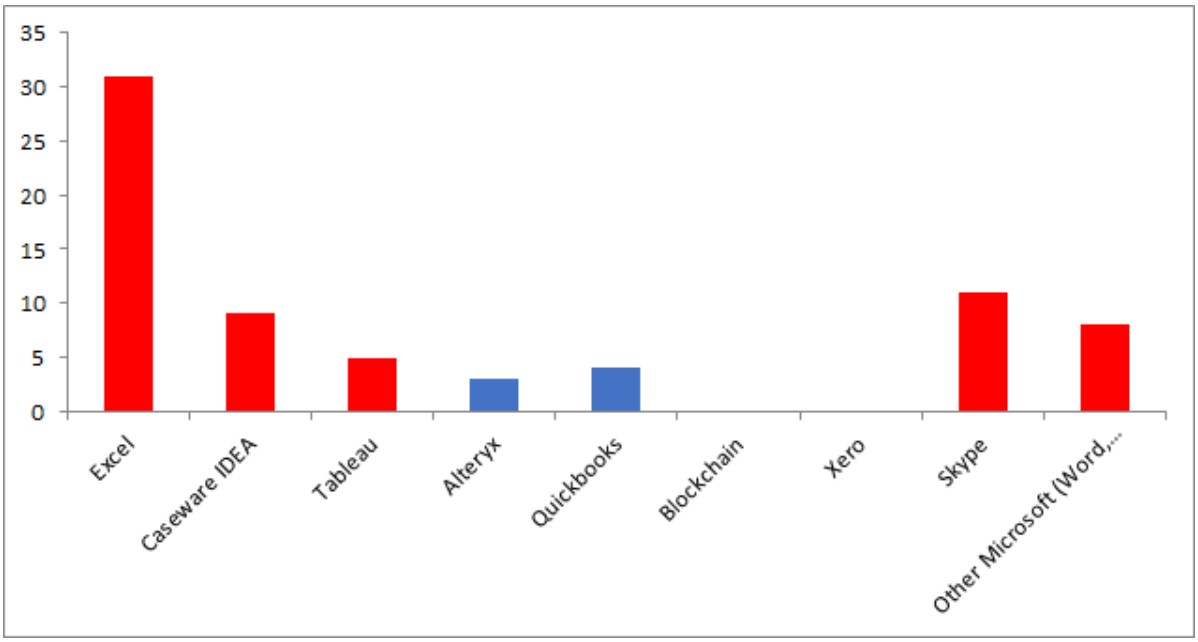
Graph 6: Percentage of Participants that Ranked Their Usage of the Platforms as a 5 or Above - Broken Down by Position Held at Firm



Overall Ranking of Technology Platforms

The last question related to technology platforms was set up differently than the previous two sets of questions. For this question, participants were instructed to list five platforms that they believe are most important to their work. They were made aware that the platforms they chose to list could have been mentioned previously throughout the survey, however, they did not have to be mentioned before. *Graph 7* below shows which platforms were listed the most by participants, creating an overall ranking of the top technologies. The platforms highlighted in red make it easier to tell which five were mentioned the most. The top five technologies perceived most important by accountants include Microsoft Excel, Skype, CaseWare IDEA, other Microsoft tools such as Access, Power BI, and Outlook, and Tableau.

Graph 7: Top 5 Most Important Technology Platforms in Relation to an Accountant's Job



Not all platforms that were mentioned by participants are listed on *Graph 7.* This is because varying platforms were listed by the participants, some only once. The ones included on

the graph above were chosen to be included because they were platforms mentioned previously in the survey and are among the most commonly listed by participants. However, it should be noted that the results presented some interesting findings. Some participants listed firm specific platforms, as one of their top five, or most important platforms. Some participants made a point in the listings to comment that one of the platforms mentioned previously in question set was actually not important to their work. For example, one participant listed that Quickbooks was not an important platform to their job. However, Quickbooks was listed by a majority of participants as being very useful to their work.

Education and Training on Platforms

In addition to understanding which platforms are most important, participants were asked to identify if they took any courses or received any firm training on the platforms listed in the survey. The results showed that 74.9 percent of participants have taken a course, as a part of their undergraduate or graduate studies, related to the technology platforms mentioned in the survey. The participants were instructed to include the name or focus of the classes that they took. Most of the participants indicated that they took introduction level courses, focusing on computing basics and platforms such as Microsoft Excel or Access. Participants were also asked to identify if they completed any courses on platforms not mentioned in the survey. A total of 23.5 percent of participants indicated that they did take a course, as a part of their college studies that did not relate to a platform mentioned in the survey. The results showed that these participants were taught to use more advanced platforms, such as SQL or Peachtree.

To determine if firms provide training on certain technology platforms, participants were first asked to indicate if they have received any training offered by their place of work on the platforms listed in the survey. The results showed that 88.3 percent of participants have received

some type of firm training on a platform listed in the survey. Similar to the questions mentioned above, if participants answered that they did receive training they were instructed to list which platform the training focused on. It is important to note that most of the participants indicated that they received some type of training on Microsoft Excel, as well as CaseWare IDEA and Alteryx. Out of all of the survey participants, 41.2 percent indicated that they received some firm training on platforms not mentioned in the survey. The results were mixed, as participants identified that they were trained on different analytical tools, firm specific tools, as well as different communication platforms.

Discussion

Overall, the results of this study provide some insight into which technology platforms may be the most important, as well as which platforms may have the biggest impact on the accounting profession. In order to understand just how accounting professionals are making use of the platforms they feel they use most and know most about, it is important to look at the features of those platforms. From the results of the survey it can be taken away that Microsoft Excel, Skype, CaseWare IDEA, other Microsoft tools, Tableau, and QuickBooks may be perceived as the most important to an accountant's job. Microsoft Excel, which was ranked highest in perceived knowledge and usage regardless of public accounting service, firm size, and position, is a tool that is used among almost all businesses and institutions today. The platform allows users to organize and analyze data with tables, charts, functions, and formulas. Microsoft Excel, which is a spreadsheet program, allows an easy way to organize data. Skype is a communication platform. This platform is much different from the other tools listed in the survey that participants were asked to rank early on. However, this is a very useful tool as it allows users to communicate, set up online meetings, instant message, and transfer files. CaseWare IDEA is a

data analysis platform that allows users to assess risk, compile evidence, and analyze trends. This is an important tool for professional accountants as it gives them the insight they need to make informed decisions. Other Microsoft platforms mentioned by participants include Word, Access, and Power BI. Microsoft Word is a word processing platform that allows users to type documents. Microsoft Access is a database platform, while Microsoft Power BI is a business intelligence platform. However, both allow users to better analyze data. One other Microsoft tool mentioned was Outlook, which is a communication tool. Tableau allows users to organize their data in a visual way. This data visualization platform also uses cloud support, allowing for real-time updates in the data. QuickBooks offers a variety of accounting applications that include business payments, managing and paying bills, and payroll functions. Some features that make this platform most useful include cloud accounting, expense tracking, and invoicing.

All of the platforms being ranked as most important by professional accountants help show how the profession is changing. Accountants can spend less time creating and filing handwritten, paper documents with the introduction of technology. Accountants today are spending more time analyzing data, which is supported by the results of the survey. Additionally, although not mentioned previously in this paper, accountants view communication platforms as very important to their jobs. While technology has provided accountants with new ways and more time to analyze large sets of data, it has also transformed the way they communicate with their clients. In addition to understanding which platforms are important, and how they are impacting the work that accountants do, the results of the survey provide insight into what types of knowledge professionals have on certain platforms.

The results of the study indicate that a large number of participants have learned how to use different platforms, whether it was a part of their college studies or through a firm provided

training. A large number of participants have taken a course at their college or university that is related to the platforms mentioned in the survey. Many of the participants indicated that their course related to the use of Microsoft Excel. However, not many have taken courses on platforms not mentioned in the survey. The knowledge that a large number of participants have not taken courses on more advanced platforms could be due to the fact that universities are not offering these types classes, or students are not taking them because they are not required as a part of their accounting curriculum. This study also shows that a majority of participants have received firm training on some of the platforms mentioned in the study. It also shows that some have received firm training on other platforms. It can be seen from the results that firms are offering training on more advanced platforms that help with analyzing data, as well as communication tools. Receiving education and training on these tools is important for professionals to continue to adapt to technological changes within the profession.

Conclusion

The tools that are perceived as most important and impactful by accountants today contain capabilities and features that allow them to work with and analyze large sets of data. The study discussed in the paper provides a lot of insight on how the accounting profession is already changing, and how accountants are spending more of their time using tools that allow them to analyze data. This means that there is already a reduced risk of mistakes in the work that they are doing. Technology has already, and will continue to change the jobs of accountants. It is important for accountants to learn and understand how to adapt to technological changes to remain relevant. A majority of accountants today have already started to receive education or training on the platforms that are leading the way in transforming the accounting profession.

Although the results of this study provide insight on the changing profession, one limitation of this study is the small sample size. The participants of the study included contacts obtained through the Master of Science in Accounting Program Director at the University of New Hampshire. For future research, it would be beneficial to use a larger participant pool containing contacts of individuals that work in different areas of the country. It would also be interesting to conduct the same research with a participant pool from a university that is located in a different part of the country. Another opportunity would be to expand more on the education and training questions. It would be beneficial to understand more about the courses participants took as a part of the college studies, as well as the firm provided trainings they received. Exploring more about these two topics would help give a better idea of how universities and firms are making sure potential new accountants are prepared for the technologically driven, professional world. Deciding to complete the same study again after a few years would help to determine just how fast the profession is changing.

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