

Accounting Software and Its Effect on the Demand for Accountants in Small Business

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ABSTRACT

Originally developed for use by accountants in the subjects of tax and financial reporting, accounting information systems (AIS) have shown success in improving the efficiency of accounting. Now affordable and continuously increasing in popularity, AIS have been designed to help business owners in completing tasks previously assigned to bookkeepers and accountants. Seeking to advance the efficiency of their accounting department, small businesses in particular are turning to AIS to reduce their expenses and better organize their financials. Much confusion exists today on the gap that occurs between the services provided by AIS and the services provided by an accountant. This research compares the roles of AIS to those of an accountant in the basic operations of small business. By examining these differences, researchers discover the overall effect of accounting software on the demand for accountants in small business.

Keywords: accounting software, technology, information systems, small business

1. INTRODUCTION

The development of AIS has changed how small business owners record, manage, and report their financial data. This advancement in technology allows owners to complete the tasks of bookkeeping and financial reporting without the use of an external accountant.

Since the invention of accounting, professionals in the field have been responsible for recording transactions and entering data into a tediously complex collection of accounts. Recently, however, advancements in accounting technology and software have moved the profession away from tedious data entry and have made bookkeeping more efficient and cost-effective. Often found online, this software makes information available anywhere with Internet and can store large amounts of data without the need to buy servers. AIS are also compatible with many applications and add-in features, allowing the user to customize the software to fit their individual needs (Baker, 2016; Kevany, 2015).

In the past, small businesses relied on the skills of accountants to record, manage, and report their company's financial data. Recording data is often referred to as data entry, and involves collecting information on the transactions that occur during a business's operations and storing it for future use (Burke & Gandolfi, (2014). Managing this data involves evaluating the information collected and developing it into reports that provide the business with an idea of its performance and where it needs improvement. Reporting financial information refers to the culmination of all data compiled throughout a given period into a set of financial statements for use by the business owner and any potential investors. AIS was originally established to improve the efficiency of accountants in completing this process, but has since been adapted and marketed toward business owners as well (Girsch-Bock, 2016). Easier to use than the accountant-gear software, small business-gear AIS enables companies to complete basic accounting procedures without the need for external accountants.

Considering availability of AIS to accountants and business owners, this research seeks to discover the implications of accounting software and whether it is valuable to its users. This study considers the services provided to accountants by AIS as well as the effectiveness of these services. It looks into the tasks that small business owners can complete with AIS and compares them to the tasks an accountant would traditionally complete. The purpose of this research is to answer the following research question: Will AIS reduce the demand for accountants in small business?

The following segments of this work are arranged into four sections. The first section is a literature review, which summarizes prior literature relevant to this study and considers how it applies to this research. Second is the methodology section which explains the research design, types of data to be collected, and hypothesized results. Following this section will be the research findings that offer first insights into the data collected. The last section will detail any conclusions drawn from this research, as well as any limitations to the study suggestions for possible future research.

2. LITERATURE REVIEW

Small businesses often consist of a handful of employees that are trained in providing goods or services to customers. Understanding this, the sole proprietor or small business owner is left responsible for keeping and evaluating the company's financials (Burke & Gandolfi, (2014). Important to business, these financials must be up-to-date and accurate (Güney, 2014).

To work effectively, small businesses must keep track of financial data as it flows through their business. Tracking financial information is a tedious task that

begins with collecting and recording data (Upton Jr., 1987). As monetary transactions occur, a business must notate the value of the transaction as well as the accounts affected. Recording this information is called data entry. After being entered, financial data can be managed and evaluated to make inferences on the overall health of the company. Business owners use this in decision making. After an operation period has ended, financial data is compiled into reports called financial statements (Moghadam, Tayebtaher, & Onsoni, (2017). The three basic steps to maintaining financial information and producing the financial statements is illustrated in Figure 1:

Figure 1: Illustration of the three basic steps to maintaining financial information and producing financial statements.

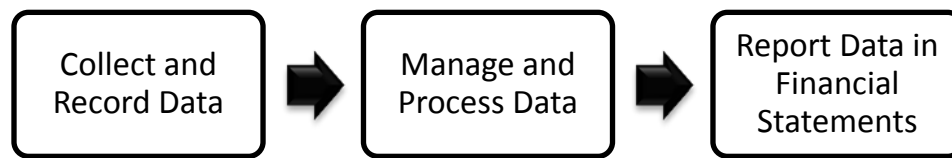


Figure 1. The three basic steps to maintaining financial information.

The tedious, complex, and time-consuming nature of this process is what leads many small business owners to get financial information through hiring a part-time bookkeeper or outsourcing to an external accounting firm (Azhar, 2017). Doing so can become expensive, and software developers have taken notice of the need for AIS geared toward small business owners. Growing nearly 50% over the past three decades, small businesses now account for roughly 55% of all jobs in the United States. This is why AIS developers have designed accounting software specifically to fit the needs of small business owners (Girsch-Bock, 2016). Far easier to use and less expensive than AIS geared toward accountants, small business AIS offers to complete bookkeeping, payroll, and other financial activities more efficiently than hiring an external accountant (Baker, 2016).

Although helpful to small businesses, these advances in AIS come with their own unique risks. The increased potential for user error could undermine the effectiveness of accounting software for some business owners (Schiff & Szendi, 2014). Concerns also arise to reliability, performance issues, lack of control, and most importantly cyber security (Baker, 2016). Data breaching and ransomware now come hand in hand with cloud based AIS, and backing up financial data has become central to the success of small businesses who use this software (Drew, 2016).

Regardless of their faults, accounting software such as QuickBooks, Sage One, Xero, and more recently a small and medium enterprise version of SAP have each caused concern for the futures of bookkeepers and accountants (Kevany,

2015). To keep their standing in business, accounting firms must adapt to using their own form of AIS to offer accurate business consulting, analytical work, and tax preparation services based on real-time data. Studies support this need, finding that “80% of Certified Public Accountants (CPA) believe their role will change significantly by 2025, with consulting, risk management, and advisory services playing a larger role in their businesses” (Drew, 2015).

This research explores a growing market within the financial services industry. Small business owners can now reduce their company’s expenses using AIS, lessening the demand for external data entry services. Despite this decline accounting firms are seeing success in other types of financial services, and a positive correlation between the use of external accountants and sales growth continues (Barbera & Hasso, 2013).

3. METHODOLOGY

This research considers technological advances in accounting software and their effects on accountants and small business owners. It studies the significance of AIS to accountants and distinguishes the variations between accountant-gear software and small business-gear software. This research evaluates the services provided by modern AIS and compares them to those provided by external accountants. This examines the potential impact of AIS on the demand for accountants.

This was a qualitative study that relied on preexisting research and data to discover and evaluate the purpose of AIS within the worlds of small business and accounting. To gather data this study used articles from the Widener Libraries Galileo search engine combined with various magazines and publications. These sources included *NZBusiness + Management*, *CPA Journal*, *Family Business Review*, *Journal of Accountancy*, *CPA Practice Advisor*, and *Entrepreneurial Executive*. The hypothesis for this study is: AIS will not decrease demand from small businesses for external accounting services.

To discover the impact of AIS on the future demand of external accountants, this research is a combination of academic knowledge displayed by peer-reviewed literature and the application of preexisting industry studies. Using these studies, this work collected data on the types of AIS available to accountants and types available to small business owners. It collected data on the costs of bookkeepers and accountants about multiple AIS packages. It gathered information on the benefits and risks of AIS in relation to cloud based software, and it evaluated the role of AIS within the worlds of accounting and small business. The results of this data are expected to support the hypothesis of this study.

4. FINDINGS:

This segment describes the results and findings of this study, which were determined by analyzing preexisting research and data. Sources were evaluated to first identify the gap that exists between the services of easy to use business-gearred AIS and more complex accountant-gearred AIS. Following was an evaluation of services provided by accountants that could not be replaced with AIS. Next was a study of the effectiveness of accountant-gearred software. After discovering the purpose of tax-related AIS to accountants, this research identified multiple business-oriented AIS and compared them to decide the most cost-effective software package for business owners. This finding was followed by a final analysis of the risks associated with using AIS.

This study began by looking at which financial services AIS could replace. It found that tasks classified under bookkeeping such as data entry, data management, and preparing financial statements, were all replaceable with accounting software. Also replaceable were tasks related to payroll (Baker, 2016). Services that were unavailable to small businesses through AIS included auditing, which often call for the physical checking of purchase orders, fixed assets, deposit slips, and receipt stubs. More importantly, this study found that AIS could not provide small businesses with analytical procedures involving financial consulting. This research found preexisting studies that showed a positive correlation between the use of external accountants and sales growth (Barbera & Hasso, 2013). Though some small business-gearred AIS offered help in tax, this study found much of tax-related software to be accountant-gearred and too complex or costly for small business owners to use. In addition, tax law requires tax preparers to file taxes, and the rules of tax are constantly changing (Anders & Fischer, 2014). Because of these continually changing tax laws, small business owners would benefit from hiring an external accountant to offer advice on current tax issues and to help with preparing tax forms. Unless tax software becomes easier to use, less expensive, and more flexible based on current tax law, it is likely to remain out of reach for small businesses.

From the accountant's perspective, tax-related AIS were far more useful in improving efficiency. Preexisting research conducted in 2014 suggested that some tax software was more effective than others. In a survey of 293 respondents, tax preparation packages were far more favorable than tax research software. The results of this survey are detailed in Table 1.

Table 1: Survey results on software satisfaction by company based on software characteristics

Company	Cost Rating	Ease of Use	Customer Support	Available Features	Timely Updates	Overall Rating
ATX	3.91	3.57	3.09	3.52	3.78	3.39
CCH ProSeries	2.73	3.76	4.00	4.49	4.32	3.98
Drake Software	4.78	4.44	4.85	4.11	4.89	4.70
Intuit ProSeries	3.35	4.41	3.62	3.85	4.49	4.03
Lacerte Tax	2.50	4.16	3.98	4.03	4.25	3.82
UltraTax CS	3.13	4.00	4.33	4.14	4.37	4.12
Total/Average	3.40	4.06	3.98	4.02	4.35	4.01

Table 1 shows the satisfaction levels of the top reviewed accounting software by tax practitioners based on a survey done by the CPA Journal (Anders & Fischer, 2014).

The three highest rated software's based off overall 2014 were Drake Software, UltraTax CS and Lacerte Tax. The strongest total was in the characteristic of "ease of use" while the lowest total score was the "cost rating" feature. Respondents, however, decided "cost rating" was less important than most of the other features (Anders & Fischer, 2014). Though accountants think software prices are too high, if the product has perceived benefits the cost is negligible. The survey also noted that a majority of respondents thought several issues were a minor to significant problem: tax law changes under the Affordable Care Act, late delivery of or corrections to Forms 1099, and late delivery of or corrections to Schedules K-1. These problems can easily be fixed by software companies as long as it is the software causing these problems and not a lack of good internet (Anders & Fischer, 2014).

This preexisting data supports the effectiveness of accountant-gear software, particularly with tax-related activities. This research found that using modern cloud based AIS is important in the accounting profession. Specifically put by J. Drew in a 2015 study, "The cloud is simply an enabler to help professionals meet and exceed the expectations of today's client." While small business owners may find difficulty in using AIS designed for accountants, professionals will find using AIS designed for small businesses to be easy. This study found that accountants who used AIS business-gear software such as QuickBooks, Sage One, and Xero Accounting Online had more time to dedicate toward performing analytical and consulting work for their clients (Baker, 2016).

This research also confirmed the effectiveness of small business-gear software. Affordable when compared to other AIS, the three software packages mentioned above were found to improve tracking payroll and offer real-time, up-

to-date financial data. In addition, these AIS could be operated using cloud technology, meaning that business owners can use them from anywhere with Internet using a computer or tablet (Girsch-Bock, 2016). Table 2 offers a comparison of these three leading AIS and the average hourly rate of a bookkeeper as determined by M. Girsch-Bock in a 2016 study. . The results of this survey are detailed in Table 2.

Table 2: *Monthly cost based on full or partial service of four common accounting software programs*

	QuickBooks	Sage One	Xero	Bookkeeper
Partial Service	\$15.00	\$10.00	\$ 9.00	NA
Full Service	\$40.00	\$25.00	\$70.00	\$1,200.00*

Table 2. Monthly cost of competing AIS compared to estimated monthly cost of bookkeeper.

*Assuming a \$15 hourly rate at 80 hours each month

Business owners can purchase efficient accounting software inexpensively. “With so many products now available via the cloud, small business owners need only have a fairly modern computer or tablet, and access to the Internet” (Girsch-Bock, 2016). Modern software is commonly user friendly, encumbers verifiability, and has low compute times. Software typically reduces accounting errors, provides better tracking of payroll, provides dynamic access to real time financial information. Several drawbacks to systems is variety of choices available, the possible integration of compatibility between the old information system and the new system, and a burden for training.

Many sites offer comparison services for the different software. Unfortunately, they are subjective or do not reveal how they conduct their surveys. Due to these facts, it lowers the credibility of their rating. For this reason, business owners should do the following before getting accounting software “Get advice, define what you want, clean your data, plan your transition and implement and test the software “(Baker, 2016).

Closing this research was a final evaluation of the risks involved in using AIS over a bookkeeper or accountant. This study found that small business owners who chose to use accounting software to complete financial activities were presented with the risk of error. The most common errors made while operating AIS are creating duplicate vendor or customer names and creating too many income accounts. Effectively stated by Schiff & Szendi in their 2014 study,

“Most users [of business-oriented AIS] can enter the details of everyday transactions correctly, but they often fail to grasp various underlying concepts and procedures in [AIS] that are essential to using it correctly and producing accurate results.”

While the risk of user error was internal, this research found that most risk associated with cloud based AIS came from outside sources. Consisting of large

fields of data servers, the cloud can rent out storage space for large amounts of data at a cost far lower than buying an individual server for a small business. However, this form of community data storage is susceptible to cyber-attacks from fraudsters who hack into the system and steal financial data. Other risks of using cloud based AIS as determined by G. Baker's 2016 study include reliability and performance issues, vendor lock, dependence, and lack of control. This research stresses that small business owners using AIS could reduce these risks by using only the latest versions of the software and by changing passwords often (Drew, 2016).

5. CONCLUSIONS AND FUTURE RESEARCH

This research considers technological advances in accounting and their resulting effects on both accountants and small business owners. It evaluates the usefulness of AIS to accountants and identifies the differences between accountant-g geared software and small business-g geared software. This research examines the services provided by modern AIS and relates them to those of professional accountants. This explores the effect of technology on the future of accounting. Considering the hypothesis, this study draws multiple conclusions that answer the question: Will AIS reduce the demand for accountants in small business?

Overall, this study found advances in AIS have taken over the more basic tasks of accountants, allowing these professionals to focus more on analytical work for their clients. This suggests that rather than reduce the demand for accountants, AIS will alter the tasks that small business owners expect accountants to complete. Several other conclusions were drawn from this research.

First, small business owners should invest in AIS to complete bookkeeping and payroll tasks. Accounting software geared toward small business is easy to use and needs minimal training. This technology is also far less expensive for the business owner to buy and use when compared to paying an hourly rate for accounting services. Removing the middleman that stands between the owner and the business's financial data will reduce misunderstandings and confusion. Business owners benefit from lowered expenses and gain better understanding of their business and its functions.

Second, business owners should use money they save from completing bookkeeping and payroll tasks themselves to buy analytical and tax services from external accountants. Higher-level analytical services can be helpful to increasing sales. They can provide insight on expenses and how to reduce them to increase net profit. AIS geared toward small businesses do not offer tax-related services. Business owners can still rely on an external accountant to offer tax advice and prepare tax forms.

Third, accounting firms should invest in accountant-g geared AIS. This software increases the efficiency of accountants and helps them to meet client demand for analytical and tax services. Using AIS such as Cloud software enables firms to provide their clients with accurate advice by using real-time data. Accounting firms who do not adapt to new technologies are likely to experience a decline in demand.

Last, small businesses and accounting firms should increase cyber security and data protection. Financial data can become vulnerable when stored in AIS, particularly in Cloud software. Fraudsters and competitors can hack software and steal data which can be sold and used against accounting firms and their clients.

There are several benefits provided from this study. First, this research improves understanding of AIS and the services they can provide relative to those of an accountant. Second, this research highlights the differentiation between bookkeeping and analytical procedures and explains the importance of both. Third, this research increases understanding of current technologies within the field of accounting and small business. Last, this research summarizes the positives and negatives of AIS and guides small business owners.

This study and its research is subject to multiple limitations. Differences in the range of services provided between competing AIS were not evaluated or compared. The risk of losing financial data within an AIS because of technical difficulty, power outages, or acts of nature was not discussed in detail. Based on complexity, AIS vary in price and may become more expensive for business owners to buy in comparison to the salary of a bookkeeper or entry-level accountant. No data was gathered on user ratings of AIS services other than tax, such as data entry, development of reports, or drafting of financial statements. Added expenses associated with the use of AIS such as security firewalls were not included in this research.

The idea behind this study offers several opportunities for future research and investigation. Future research should proceed full steam ahead. One such investigation could expand on this study to include the effect of AIS on moderately sized businesses or larger corporations. For larger corporations, relationships between the sole use of AIS and stock price could be measured and analyzed. New and more complex AIS are continually being developed and growing their abilities to include new services that were unavailable during the time of this research. Extending this study to include such advances in AIS technology could offer extra insight on the decreasing number of unique services an accountant could provide. Employing a quantitative method of research to capture a cost-benefit analysis approach to buying an AIS versus hiring an accountant could also be explored.

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