A Study of State Audit Accounting Software Use

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Abstract

Selection of the right accounting software is an important decision given the importance and variety of tasks that auditors perform. Typically, accounting software is used for tasks such as retrieving information from a database, audit sampling, calculating ratios, substantive testing, and fraud detection. However, each of the 50 states differ regarding demographics and lifestyle. Some states may be rural and agricultural, while other states may be urban in nature and have a manufacturing or service-based economy. Therefore, it may be that the choice of accounting software may vary considerably from state to state, depending on each states' specific needs. In this study, the researchers seek to identify the differences and the areas of commonality among state auditors, and how those differences and similarities influence their audit software purchase decision.

Key words: accounting, state audit departments, software use

Introduction

While general research can be found on audit technology and auditor use, minimal research can be found on audit technology usage during State Audits (Abou, et.al., 2015; Byrnes, et. al., 2018; Chapman, 2002; Coman, & Munteanu 2018; Cunningham & Stein, 2018), Hodgson & Ponte, 1991; Hubert, 2000; Khatavakhotan & Ow, 2015); Lin, 2015; McKee, 2014; Needleman, 2008; O'Donnell & Schultz, 2003; Omoteso, 2012; Rechtman, 2009; Vasarhelyí, et. al., 2014; Wicaksono & Lusianah, 2016). Research can be found on external auditors' software usage (Ahmi & Kent, 2012) and internal auditors use of software (Barac, 2016) as well as various software available to auditors (Chou, 1998; Needleman, 2009; Wu, et al., 2017) however, the literature is fairly limited on State Audit software usage.

State Auditors differ from internal and external auditors as State Auditors are also considered executive officers of the United States (https://en.m.wikipedia.org/wiki/State_auditor). The major difference between internal auditors and external auditors would be that external auditors work for an independent audit firm and internal audits are company employees. In addition, internal auditors report to management but external auditors will be responsible to the shareholders and the audit committee. Often, large companies will have an internal audit department in additio0n to retaining external auditors (https://www.accountingtools.com/articles/the-difference-between-internal-and-external-audits.html).

It is because of these differences that State Auditors may need to acquire and utilize different audit software than their professional colleagues in internal and external audit depending upon their state budget allocation, state audit objectives which can be affected by state population, size of state audit staff, geographic location and specialty issues. For example, the State Auditor of Alabama would be constitutionally responsible to report to the Governor of Alabama for all dollars spent, taxes and other collections paid out, and the Alabama State Audit office reports for additional items based upon the Alabama Legislature which may differ from other state legislatures. In larger populated states such as Mississippi, State Audit responsibilities would be distributed to various divisions:

"Divisions

- The Financial and Compliance Audit Division which is responsible for conducting and overseeing audits of public entities.
- The Investigative Division is responsible for the investigation of alleged or suspected violations of Mississippi law, including fraud and embezzlement, by public officials related to the purchase, sale or use of any supplies, services, equipment, or other public property.
- The Performance Audit Division conducts programmatic and performance audits and reviews to evaluate selected operations of government, making recommendations aimed at enhancing efficiency, effectiveness, and economy in government.
- The Property Division is responsible for maintaining a master inventory of fixed assets for state agencies and universities. It also conducts fixed asset audits for these public entities and for county governments as well.
- The Technical Assistance Division is responsible for providing accounting and compliance assistance to state and local governments. It also conducts related training and is responsible for the design of uniform accounting systems for local governments."

Source: Mississippi Office of the State Auditor, http://www.osa.ms.gov/about/

In states with smaller populations such as Maine, all audit work and other responsibilities will be conducted in one department rather than through separate divisions such as Mississippi. Therefore, each State Audit Department is as unique as the state they serve whether it be a state with a population, a coastal state, a mostly agricultural or manufacturing state, or mining state. The diversity of each state can mean some State Auditors may need diverse audit software to match the existing state legislative requirements (https://www.maine.gov/audit/).

Even twenty years ago, auditors utilized software such as Access, ACL, Idea, Great Plains, Lotus Notes (Mooney, & Harrell & Ludwig, 2000), Solomon Software, Data Pro Accounting Series, QuickBooks, Peachtree, PeopleSoft, Generalized Audit Software (GAS) (Aries & Lusianah, 2016; Weidenmier, & Herron, 2004), CAATS (; Sayana & CISA, 2003) and Crystal Reports (Chapman, 2002; Glover & Prawitt & Romney, 1999; Hodgson & Ponte, 1991; Jackson, 2004; McCollum & Salierno, 2003; Needleman, 2001; and Needleman, 2008).

But now, State Auditors can also utilize data analytics (Jackson, 2014; O'Donnell, 2015), artificial intelligence; (Omoteso, 2012), and computerized audit software (Richardson & Louwers, 2010) all of which a large C.P.A. firm could afford to purchase, but businesses with low budgets for internal and external audits and state budgets may not be able to afford. Companies can also utilize in-house software to keep the audit software budget lower, but even internally-developed software can be costly (Nusbaum & Weiss, 1995; Savage & Callaghan & Peacock, 2004; Sonnelitter, & Pacter, 1994; Tomozei & Vetrici & Amancei, 2009.)

This research study included sending validated questionnaires to the 50 State Audit Departments of the United States. The survey questionnaire listed the various audit software noted in the literature and asked state auditors their reasons for choosing the different brands of accounting software and their satisfaction level with their existing software, in addition to any improvements they would like to see in the software purchased for their state. The researchers also asked what brands of accounting software their state utilized and what level of training is needed for the audit staff to utilize the software effectively. Because the literature mentioned the option of internally developed audit software, this software option was also noted in the survey questionnaire.

Survey questions also included asking what purpose the software would be used for during an audit. The survey also included several demographic questions including asking the number of regular employees, whether the state hired audit contractors for audit assignments, and what staff education (including certifications) is required for being a State Auditor in their respective state. The certification questions were added because the literature noted the high-level of training that may be needed depending upon the software and software level chosen (Ahmi, & Kent, 2013; Donathan, 2012; Jackson, 2004; Nuijten & Twist & Steen, 2015).

Implications for further research

Continued research in this field may yield some interesting and important results. First, results from this study may provide information useful in creating more standardized software. Second, identifying barriers to effective use of accounting software may help in developing improved software designs. Finally, compatible software systems may allow for better comparisons of state data.

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