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Educational Case

Selecting an auditor for Bradco using indicators of audit quality

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ABSTRACT

In this activity, you are introduced to the auditor selection process and how indicators of an auditor's audit quality may influence that process. You will gain an understanding of factors that can affect audit quality and apply that knowledge in a decision-making task – selecting an auditor for Bradco. The CAQ, PCAOB, IAASB, and other entities classify indicators according to how they impact audit quality. By completing the activity, you will learn to delineate how certain inputs (e.g., auditor training) may influence how an audit is conducted and certain outputs (e.g., PCAOB inspection findings) may measure or indicate whether an audit was conducted with an appropriate level of quality. The activity also demonstrates how indicators of audit quality may be used by audit committee members and company management to evaluate and select an auditor.

1. Introduction

Bradco, Inc. is a publicly-traded builder of custom, single-family homes in Illinois. Home builders like Bradco design and build homes to customers' specifications.[1] Every part of the construction process from pouring the concrete foundation, to cutting and attaching shingles on the roof, is performed at the building site.[2] In the current year, Bradco reported revenues of $100 million and had a market value of $125 million. Two years ago, Bradco's revenues were $35 million and its market value was $40 million. Most of this growth is the result of Bradco's merger with one of its competitors, consistent with its strategy of increasing market share through acquisitions. To a lesser extent, growth in revenues stems from an increase in demand for homes to replace those that were destroyed or damaged during tornados that hit the Midwest about 27 months ago. Bradco plans to continue its strategy of acquiring other competitor home builders to accelerate its growth.

Companies in the residential construction industry face unique accounting issues, such as cost capitalization, accounting for pre-development costs, estimating projects' costs-to-complete, and accruals for explicit and implied warranties. Downturns in the economy tend to negatively impact homebuilders ahead of companies in other industries.[3] Bradco is not immune to these types of cyclical operating trends. While natural disasters, like the recent tornados, may increase demand for Bradco's services, they also make it difficult to find building materials at reasonable prices. These issues, and Bradco's strategy of acquiring competitor businesses,

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[1] Although Bradco is a fictitious company, the activity was developed by former auditors, one of whom has 19 years of public-company auditing experience and has served as a member of the audit committee of five publicly-traded companies. The realism of the activity was further validated by three currently-practicing audit partners with clients of a size similar to Bradco.

[2] This process differs from the manufacture of pre-fabricated, modular homes. Modular homes are typically manufactured using an assembly-line process and are delivered to locations specified by customers on tractor-trailer trucks. Modular homes have limited customization options; they are essentially one-size-fits-all.

[3] See: https://www.moneycrashers.com/leading-lagging-economic-indicators/. Downturns in building permits, manufacturing activity, and housing prices, among others, are all indicators that the economy may be heading into a decline.

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complicate its operations and may have an impact on the quality of its financial statements.

The Securities Exchange Act of 1934 requires financial statements of publicly-traded companies (also known as issuers), like Bradco, be audited annually by an independent auditor registered with the Public Company Accounting Oversight Board (PCAOB). Bradco's long-time auditor, a small public accounting firm with an audit staff of ten CPAs, recently ceased business due to the owner's retirement. As a result, a new auditor must be hired to conduct Bradco's annual audit. As required by the Sarbanes-Oxley Act of 2002 (SOX), engaging an external auditor is the responsibility of Bradco's audit committee, but input from management is not prohibited. Beyond being registered with the PCAOB, the audit committee has established several criteria for engaging the new auditor. The criteria are:

1. Experience in auditing companies similar in size to Bradco,
2. Experience in auditing companies in the same or a similar industry as Bradco,
3. Responsiveness to the audit committee,
4. Ability to work well with the management team, and
5. Ability to perform a high-quality audit.

The decision of which auditor to engage has been narrowed down to two auditors, Firm A and Firm B. The audit committee has determined that both firms meet the above criteria 1 through 4. The audit committee must now decide between Firm A and Firm B by assessing each firm for criteria 5, the ability to perform a high-quality audit.

2. The importance of audit quality

Audit quality can be defined many ways including, but not limited to, the auditor's ability to discover and report misstatements, meet legal and professional requirements, and/or meet the needs of investors. Although defining and measuring audit quality may be difficult, the need for high quality audits is universally acknowledged. High quality audits enhance investor confidence and thereby contribute to efficient financial markets.

Attempts have been made to better define and understand audit quality by devising various categorizations. For example, audit quality has been categorized into supply-side and demand-side factors (Reisch, 2000). Supply-side factors examine quality from the auditor's perspective, primarily the auditor's ability to conduct a high-quality audit (e.g., one would normally expect higher quality audits when the auditor has more technical knowledge of a client's industry). Demand-side factors focus on attributes of the audit client and users of the audit report (e.g., regulators may demand higher quality audits by expanding audit testing, as was the case when SOX began to require auditors report on the effectiveness of issuers' system of internal control over financial reporting).

A more common typology that has been used by the PCAOB and the International Auditing and Assurance Standards Board (IAASB) examines audit quality in terms inputs, processes, and outputs (IAASB, 2014; PCAOB, 2013). Inputs are associated with auditor and auditor attributes that impact an audit engagement, such as the average experience level of staff and industry specialization of the auditor. Processes involve the implementation of audit inputs by the engagement team requiring decisions about planning, collecting, and evaluating audit evidence (ASC, 2016). Outputs include reports and other information that are generated as the result of an audit. In this activity, we focus our discussion on the more tractable indicators of audit quality, inputs and outputs.

An auditor's competence and independence are inputs to the auditing process and are potential indicators of the auditor's ability to perform a high-quality audit. For example, an auditor who has both passed the CPA exam and received specialized training in auditing information systems controls would generally be expected to generate higher quality audit work than an auditor that has attempted but failed the auditing section of the CPA exam and has received no specialized audit training. Relatedly, the fewer financial and familial ties an auditor has to an audit client, the greater is his or her independence. Shareholders typically rely on audit committees to monitor these types of indicators of audit quality, but even audit committee members may be unable to reliably determine the competence and independence of audit engagement team members. More easily observed and evaluated as indicators of audit quality are the outputs of an audit.

The most common output used to evaluate audit quality is the auditor's opinion. Although alternative explanations are possible, if an auditor issues an unqualified opinion on financial statements that are subsequently found to be materially misstated, the quality of the audit is questionable. The challenge with using outputs to measure audit quality is they may not be timely, reliable indicators. Several years may pass before a material misstatement is discovered, or a material misstatement may never be discovered. Further, the absence of a restatement does not necessarily mean the audit was of high quality. An alternative explanation might be that the company's financial management is highly skilled and prepares financial statements that have no material errors. In this case, an auditor may issue the "correct" audit opinion, even if he or she performs a low-quality audit. Thus, context is important in assessing audit quality.

Contextual, or environmental, factors can affect financial reporting and audit quality. Contextual factors include accounting rule changes, the state of the general economy, and the industry in which a company operates. For example, companies that develop software are generally riskier than those that manufacture furniture. The speed of technological change impacts both companies, but it typically impacts software developers more quickly than manufacturers of durable goods. Additionally, certain industries have specialized accounting issues (e.g., software developers, utilities, insurance companies) that must be adequately assessed by auditors. Context impacts the risk that a company's financial statements may be materially misstated (i.e., the risk of material misstatement – RMM). For example, newly-implemented financial reporting systems increase the risk that transactions may be reported incorrectly. Software bugs must be worked out, and employees must be trained to use new systems.

The regulatory environment in which a company operates is also a contextual factor. Publicly-traded companies must comply with rules and regulations of the Securities Exchange Commission (SEC). Companies operating in certain industries must also comply with additional governmental regulations. For example, financial services companies (e.g., banks) are subject to regulation and inspection by entities such as the Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency (OCC). Regulation may decrease the likelihood that material financial statement errors will occur and go undetected.

Auditors that perform audits of issuers are required to comply with rules of the PCAOB.[4] The PCAOB develops standards and periodically inspects auditors for compliance with those standards. During its inspections, if the PCAOB identifies what it believes to be a violation of current auditing standards, ethics and independence rules, or quality control standards (all available at: pcaobus.org/standards/), the result is included in an inspection report as a "finding." PCAOB inspections differ from other auditor quality review programs (e.g., Peer Reviews of the American Institute of Certified Public Accountants) in an important way – inspection results are publicly available.

A firm's audit quality may be perceived as low if its PCAOB inspection reports include a high number of findings or an increasing trend in findings. However, some findings are more problematic than others. While all findings may be technical violations of the auditing standards, some are violations of Auditing Standard No. 3, *Audit Documentation*, an indication that the auditor may not have sufficiently documented his or her high-quality audit work. On the other hand, some findings require that a company's financial statements be restated and/or the auditor's report be reissued. The consequences of these types of findings are clearly more severe for an auditor's clients. Some findings may also result in the PCAOB disciplining an auditor. Such disciplinary (or enforcement) actions may include monetary penalties or prohibiting the auditor from performing audits of issuers, among other things. Research shows that fewer than two percent of findings lead to restated financial statements (Boland, Brown, & Dickins, 2016).

Audits chosen for inspection are not randomly selected. The PCAOB currently targets for inspection issuer-audits believed to have the highest risk (Keyser, 2015; PCAOB, 2012), so if one auditor has a greater percentage of clients in a high-risk industry or a greater number of clients have high risk audit areas, then the number of inspection findings between firms may not be comparable. Also, if an auditor's inspection report has no findings, there are at least two possible interpretations: the auditor provides high-quality audits or the auditor's portfolio of issuers are in low-risk industries and/or engage in less complex transactions. This example shows that indicators of audit quality have inherent limitations and must not only be assessed quantitatively, but also qualitatively due to the unique circumstances, or contexts, surrounding each audit client.

3. Selecting an auditor for Bradco

While audit committee members and managers generally have similar goals in terms of audit quality, they also have competing pressures that may impact their decisions about which auditor to engage. As members of the board of directors, audit committee members are elected by shareholders to represent their interests. Shareholders need confidence that the financial information produced by Bradco is not materially misstated. Auditors assist the audit committee in monitoring the quality of the financial statements produced by management. The audit committee views the retirement of the former auditor as an opportunity to potentially improve the quality of Bradco's audit.

A company's board of directors is responsible for hiring a Chief Executive Officer (CEO) capable of successfully operating the company. The CEO, in turn, employs accounting managers and other accounting personnel (e.g., Chief Financial Officer, controller, general ledger clerks, accounts payable supervisors, credit managers) he or she believes are competent and able to produce financial statements that are free of material misstatement. If managers believe the financial statements they prepare are error-free, they may consider audits a "necessary evil," conducted only to satisfy regulators. In other words, the quality of the auditor may not be as important to management as it is to the audit committee. In addition, audits are costly. Last year Bradco paid its auditor $350,000 to perform audit services, based on approximately 1750 audit-hours. This year the average audit fee of other companies of Bradco's size is $500,000. Bradco's managers have an incentive bonus structure that is dependent on increasing net income each year. Management incentives such as these (a context factor) may influence the quality of Bradco's financial statements.

3.1. *Your role*

The decision of which auditor to engage will be based on an evaluation made by Bradco's audit committee, taking into consideration the recommendation of the financial management team. You will be instructed to assume the role of either an audit committee member (as explained in Appendix A) or a member of the financial management team (e.g., chief financial officer, vice-president of finance, treasurer, or controller, as explained in Appendix B). To encourage an interesting discussion, you should only read the information provided for the role you are assigned.

After familiarizing yourself with your assigned role, you should review the information provided by both auditors competing for

[4] Auditors of the financial statements of U.S. privately-held companies must adhere to rules of the AICPA's Auditing Standards Board but are not required to register with the PCAOB. Unlike auditors of issuers, auditors of privately-held companies are not required to, among other things, report on internal control over financial reporting, be engaged by audit committees, or rotate engagement partners at least every five years. The rotation requirement may make it difficult for smaller-sized auditors to comply with PCAOB rules (Daugherty, Dickins, Hatfield & Higgs, 2012). In addition, although the PCAOB's auditor inspection process is similar to the AICPA's peer review process, the results of PCAOB inspections are publicly-available. As the quality of audits and auditors of issuers are more restrictive and transparent, the activity employs a U.S. issuer example.

the audit of Bradco (see Section 3.2). You will then evaluate each firm based on the following ten indicators of audit quality. While there are other indicators of audit quality, the following ten indicators were selected by Bradco's audit committee to help determine which auditor will be engaged. For each indicator, you are to determine its impact on audit quality. The indicators are:

1. Workloads of audit personnel,
2. Industry expertise of audit personnel assigned to the engagement,
3. Turnover of audit personnel,
4. Expected allocation of audit engagement hours between preliminary (client acceptance, planning, and tests of controls) and final (substantive tests, reporting, and wrap-up) phases of the audit,
5. Results of employee satisfaction surveys of auditor personnel,
6. Audit partner compensation,
7. Results of the auditor's client satisfaction surveys,
8. PCAOB inspection results of the auditor,
9. Frequency of financial statement restatements for errors, and
10. Trends in litigation against the auditor.

3.2. About the auditors

To facilitate your evaluation, the audit committee also prepared a list of questions which were submitted to both auditors. The responses provided by Firm A and Firm B are as follows.

3.2.1. Description of firm A

Firm A is a full-service accounting firm licensed in Illinois with one office in Chicago. The firm just celebrated its 25th year in business and is committed to providing cost-effective services and high-quality audits. Some general information was obtained by viewing the firm's website and most recent PCAOB inspection report. Firm A has 75 issuer-audits which together represent 65 percent of the firm's clients. The only non-audit service provided to issuer-clients is tax return preparation. The firm and its personnel have received no enforcement actions or other penalties. Overall, 121 auditors are employed, of which 12 are audit partners. A recent newspaper article stated that Jamie Regent was promoted to Senior Manager (one of 12 senior managers) and Teresa Fosting, a recent graduate, was hired as a staff auditor (one of 32 first- or second-year staff).

A reading of Firm A's most recent PCAOB inspection report reveals that of the firm's 75 issuer-audits, 10 were inspected. These audits had a total of two findings. Specifically, the firm was criticized for failing to: (1) appropriately address a departure from GAAP that resulted in a material misstatement and a restatement of the audited financial statements of one issuer, and (2) for relying on information received from a client-hired specialist for assumptions related to goodwill impairment, rather than engaging an independent specialist.

3.2.2. Information requested from and provided by firm A

To the Audit Committee of Bradco Inc.:

We appreciate your interest in obtaining audit services with our firm. The following information is being provided in response to your inquiries.

Q1. What is the average number of hours that your audit personnel work each week?

All employees work an average of 45 h each week, which does not include travel time. Some upper-level audit staff may work slightly more hours during the busy season (i.e., January through April); however, they are given a reduced load from June to August as well as generous personal leave to offset the slight increase during the busy season.

Q2. What is the relevant industry experience of personnel that will be assigned to our audit?

We have two audit teams that have previously conducted audits on clients in the modular home manufacturing industry, which we believe is similar to the single-family home construction industry. Should we be hired, the audit team that will be assigned to conduct the audit of Bradco will be led by Audit Partner, Jane Darrwell. Jane has been with our firm for five years. Her name may sound familiar because she was CFO of the largest modular home manufacturing company in the mid-west, Mills Co., for five years. Prior to this, Jane was a senior audit manager with another auditor in Illinois where she worked for 12 years. During her last two years at Mills Co., she worked closely with Shirley Millson, who was once an internal auditor with Bradco. Shirley, an audit senior, has been with our firm for two years. She will be the team member in charge of the day-to-day activities on site, and three other staff auditors will serve the Bradco engagement. One auditor is new to our firm, but the other two have a combined six years of auditing experience.

Q3. What is your annual personnel turnover? How many years has each expected member of our engagement team been with your firm?

The turnover rate for our firm averages around 21 percent per year, which is just slightly higher than the industry average of 17 percent for firms of comparable size. The information pertaining to the employment tenure of audit team members was provided in question two.

Q4. How many hours do you plan to spend conducting our audit? Specifically, how many hours have you allocated for the preliminary and final phases of our audit?

Based on our audit fee calculation model and prior audits in the industry, we anticipate the engagement will require approximately 2200 audit-hours, give or take 50 h. We expect that approximately 40 percent of those hours will be in completing the preliminary phase of the audit conducting planning procedures and tests of internal controls, and the remaining hours will be distributed between conducting substantive procedures and the final wrap-up.

Q5. Do you conduct periodic employee satisfaction surveys of your auditing personnel? If so, how satisfied are your personnel with your firm?

We do not conduct periodic employee satisfaction surveys. However, we do use a 360-degree peer-review process in which employees are required to provide one positive comment and identify one area needing improvement to each subordinate, engagement peer, and upper management. Employees have mixed feelings about the program, but it has only been in place for nine months.

Q6. How are your partners compensated? How does this compare to other auditors of your size?

Consistent with other auditors of comparable size, our partners have a compensation package that includes a base-salary and competitive bonus package. Annual bonuses are based on a percentage of the following items: (1) bringing new clients to the firm, (2) adhering to engagement time budgets, (3) maintaining overall audit costs within the allotted budget, (4) performing at least 20 h of community service per year, and (5) participating in the firm's mentoring program.

Q7. Do you conduct periodic client satisfaction surveys? If so, how satisfied are your clients with your firm?

Each audit committee member and member of financial management are asked to annually complete a satisfaction survey. Overall, client representatives are happy with the services provided and the professionalism of our staff.

Q8. Please describe any significant matters of litigation or regulatory investigation that your firm is currently undergoing.

As per PCAOB procedure, the firm has 12 months to remedy any findings and internal control issues. As of this writing, our firm has satisfied all issues, except one. Resolution of the final issue is in process.

Q9. What type of controls does the firm have in place to ensure a high-quality audit?

Our firm has many quality control procedures in place to provide quality services and maintain competency, independence, and professional skepticism. First, the firm has multiple levels of quality control in place from planning an audit to multiple types of reviews during and after the audit. For example, the firm was the first of its size to implement an internal quality review department, employing five professionals to review the work of tax and audit professionals. Second, each year, audit partners are required to complete 56 h of continuing professional education while all other professionals must complete 40 h. Of that, each professional must have 20 h in his or her specific area (e.g., tax versus audit) and 1.5 h in ethics. Third, all employees are required to annually review and report changes in education, licensure or certification, legal issues (i.e., tickets, etc.), conflicts of interest, and verification of independence.

Q10. How much do you expect to charge for conducting our audit?

Our audit fee will be $450,000.

3.2.3. Description of firm B

Firm B is a full-service accounting firm licensed in Illinois with its main office just outside of Chicago. A small, second office was recently opened near Springfield, Illinois. The firm has been in business just over 11 years. Some general information was obtained by viewing Firm B's website and most recent PCAOB inspection report. Specifically, Firm B has 12 issuer-audits, which comprise 10 percent of the firm's clients. The firm offers tax, audit, and some consulting services to its issuer-clients. The firm and its personnel have received no enforcement actions or other penalties. One audit partner, Raymond Driver, retired after 42 years of experience as a CPA. Overall, 65 auditors are employed by the firm, two of which are audit partners, 15 are senior managers, and 48 are staff auditors.

A reading of Firm B's most recent inspection report reveals that of the firm's 12 issuer-audits, one was inspected. The firm received no criticisms (findings).

3.2.4. Information requested from and provided by firm B

To the Audit Committee of Bradco Inc.:

Thank you for contacting us to express an interest in obtaining our audit services. We have provided the following information you have requested.

Q1. What is the average number of hours that your audit personnel work each week?

Our audit personnel work an average of 58 h a week to service our clients. During the summer months which are less busy, our employees may choose to work a four-day week, work partial days, or receive compensation for the additional hours in the form of a bonus.

Q2. What is the relevant industry experience of personnel that will be assigned to our audit?

Our firm's partners and employees have a combined construction industry knowledge (commercial buildings and residential homes) that spans 38 years. Should Bradco engage our firm, the lead audit engagement partner will be Tom Joad.

Q3. What is your annual personnel turnover? How many years has each expected member of our engagement team been with your firm?

Over the last four years, our employee turnover rate has been 12 percent. The tenure of the individuals that will be assigned to the Bradco engagement team varies. Tom has conducted audits in the industry for six years and has been with our firm for seven years. In addition to Tom, the engagement team will include an audit manager, an audit senior, and three staff auditors that have six, four, two, one, and one year of experience, respectively, performing audits.

Q4. How many hours do you plan to spend conducting our audit? Specifically, how many hours have you allocated for the preliminary and final phases of our audit?

Prior engagements of clients of Bradco's size required roughly 2600 h, with an additional 50 h for technology conversion issues (converting financial statement information to digital format). We expect approximately one-third of those hours will be allocated to the preliminary phase of Bradco's audit.

Q5. Do you conduct periodic employee satisfaction surveys of your auditing personnel? If so, how satisfied are your personnel with your firm?

All employees are asked to complete a written satisfaction survey and to submit it anonymously to our human resources office. According to the responses, employees are satisfied with their employment and are happy that the new bonus program was offered for any overtime incurred during the busy season.

Q6. How are your partners compensated? How does this compare to other auditors of your size?

Partners have a fixed annual base salary. We believe contingent compensation, like bonuses, sends the wrong message to partners. We want all our personnel focused on performing quality audits, not on earning bonuses. Currently, our partners are paid approximately 85 percent of the average compensation of similarly-sized auditors. Through future raises, which will be largely based on the results of client satisfaction surveys, we expect this difference to be reduced quickly.

Q7. Do you conduct periodic client satisfaction surveys? If so, how satisfied are your clients with your firm?

During exit conferences, client representatives are presented a survey on the back of a prepaid postcard. Survey questions include: (1) Overall, I am a satisfied client of the firm; (2) I feel the firm values our business as a client; (3) I believe the firm provides quality services; (4) Firm representatives appear to be well informed and knowledgeable about our company and industry; and (5) I would recommend the firm to others. Participants' responses are one for "Strongly Disagree" and ten for "Strongly Agree." Client representatives have consistently responded "ten" for each question during the years this method has been in place.

Q8. Please describe any significant matters of litigation or regulatory investigation that your firm is currently undergoing.

Earlier this year there was an incident involving an audit senior and a client's daughter. Firm management was not aware of the relationship and other events that transpired, but, since learning of the situation, we have taken appropriate action. The audit senior was sanctioned by the Illinois Board of Examiners (known in other states as the Board of Accountancy).

Q9. What type of controls does the firm have in place to help ensure a high-quality audit?

Our firm has many quality control procedures in place:

- To ensure quality audits are provided, each audit is reviewed by a concurring partner in addition to the internal reviews performed while the audit is in progress.
- Our professionals complete continuing professional education (CPE) each year (56 h for partners and 40 for all other professionals) to remain up-to-date with the latest changes in accounting and auditing best practices. Our professionals target 20 of these CPE hours in their specific area of expertise (e.g., tax, audit, industry specialization, etc.) and 1–2 h of ethics annually to meet the requirements of the Illinois Board of Examiners.
- Each year, all employees verify their continued independence and report any relevant changes to the firm, such as additional degrees, licenses or certifications. They must also disclose any participation in a lawsuit.

Q10. How much do you expect to charge for conducting our audit?

We currently expect our audit fee to range from $510,000 to $530,000.

3.3. Requirements to complete the activity

1. Read the description of your role as assigned by the instructor and focus on the responsibilities of that role (Appendix A – Audit committee member role, or Appendix B – Member of financial management role).
2. Read the information describing and received from both auditors.
3. Complete the Student worksheet (Appendix C) to document your evaluation of the two auditors using the indicators selected by the audit committee. The worksheet requires that you classify each indicator as an input to audit quality or an output. In some cases, the indicator may be both. For example, an auditor's client turnover could be an indicator of audit quality. While client turnover may be classified as an output of audit quality (e.g., high turnover suggests either clients are not happy, or the auditor has a poor client acceptance process), it could also be an input to audit quality. If turnover is high, the auditor may go out of its way to keep a client happy in the future. Happy clients are not necessarily bad unless auditors compromise their standards to satisfy them. To help you complete the worksheet, an example indicator, continuing professional education (CPE), has been provided.

Both Firm A and Firm B provided CPE information in their response to inquiries from the audit committee regarding quality control (Question No. 9). CPE requirements are in place to ensure auditors maintain up-to-date knowledge on accounting and auditing issues which impacts audit quality. In the column "Input to, or output of, audit quality – or both," the CPE requirement is an input factor. The "Information provided by the firm" column asks you to summarize information provided in the activity. In this case, Firm A and Firm B provided nearly identical information which has been summarized.

In the column "Assessment of indicator," you are asked to rate the information (i.e., 1 is low and 5 is high). A "1" suggests the indicator contributes little to, or reduces, audit quality. A "5" suggests the opposite. In the example provided, the firms' CPE standards are identical to those required by the Illinois Board of Examiners, so both firms are rated "3" in their respective columns. If a firm had lower expectations than those required, that firm would have been rated one or two depending on the magnitude of the difference. If a firm had higher standards, again depending on the magnitude, it may have been rated four or five.

The "Notes on assessments and comparisons" column provides space for the comparison of the two firms and other notes. In the example, the firms are nearly identical in terms of this indicator which means there is no discernable difference in firms based on this information. Importantly, your response to an indicator may differ slightly depending on your assigned role. For example, if you are assigned the role of a member of the financial management team, you may be less concerned about the CPE of your auditor if you believe your financial management team is adequately qualified to ensure Bradco's financial statements are not materially misstated. The CPE indicator may not be important as long as a firm meets the minimum requirements to ensure its professionals are able to maintain their CPA licenses. On the other hand, this indicator may have more weight in the auditor selection process for those assigned the audit committee role who may or may not have the same level of confidence in the accounting expertise of Bradco's financial management team.

In the "Rank Importance" column, you should assign a value of from one to ten as an indication of how important the indicator was to your decision of which auditor to select for Bradco. A ranking of "1" suggests this indicator is the most influential in the determination of your audit firm recommendation. The purpose of the ranking is to enable the classroom discussion to focus on indicators believed to be the most important.

4. Determine which accounting firm you recommend engaging to conduct the audit of Bradco's financial statements. Be prepared to discuss each of the indicators including challenges, if any, you faced when evaluating the auditors, and how you determined your ratings of the indicators. You should also be prepared to defend your auditor recommendation in class. Please bring your original, completed Student Worksheet and a copy with you to class. One copy will be retained for the class discussion and the other is to be submitted to your instructor.
5. In preparation for the classroom discussion, identify two or three additional indicators of audit quality potentially relevant to Bradco's auditor selection decision.

4. Teaching notes

4.1. Overview

In this activity, students are introduced to the auditor selection process and how indicators of audit quality may influence that process. Students will gain an understanding of factors that can affect audit quality and apply that knowledge in a decision-making task – selecting an auditor for Bradco. The CAQ, PCAOB, IAASB, and other entities classify indicators according to how the indicators impact audit quality. By completing the activity, students will learn to delineate how certain inputs (e.g., auditor training) may influence how an audit is conducted and certain outputs (e.g., PCAOB inspection findings) may measure or indicate whether an audit was conducted with an appropriate level of quality. Students completing the activity will also demonstrate how indicators of audit quality can be used by audit committee members and company management to evaluate and select an auditor. To successfully complete the activity, a basic understanding of financial statement audits and audit quality is necessary.

The activity culminates in students making recommendations about which auditor a hypothetical company should hire for its audit engagement based on their assigned role as either a member of Bradco's audit committee or financial management team. The criteria for students' recommendations is a set of potential indicators of audit quality, largely derived from indicators discussed over the last decade by the PCAOB and the CAQ.

4.2. Learning objectives

After completing the activity, students are expected to be able to:

1. Classify indicators of audit quality as inputs to, or outputs of, audit quality,
2. Describe how specific indicators are expected to influence or measure audit quality, and
3. Demonstrate how indicators of audit quality might be used in the auditor selection process.

4.3. Implementation guidance

Instructors may choose to conduct the activity in an undergraduate-level auditing course after audit planning topics have been covered or near the end of the course where it allows students to apply concepts they have learned throughout the course. The activity may also be conducted at the beginning of a graduate-level auditing course where it serves as a review of certain auditing topics (e.g., independence, proficiency, adequate planning, and supervision). As later described, conducting the activity typically requires one class period. Several variations of implementation are also later presented to accommodate instructors' preferences and time constraints, including an online discussion board version of the activity.

4.3.1. Steps to complete the activity

As depicted in Fig. 1, five steps are typically used to complete the activity as an in-classroom exercise. Variations of the five steps are also described if, for example, the instructor opts to use the activity exclusively as an out-of-class assignment.

Step 1: The instructor assigns students to either the role of an audit committee member or a financial management team member.

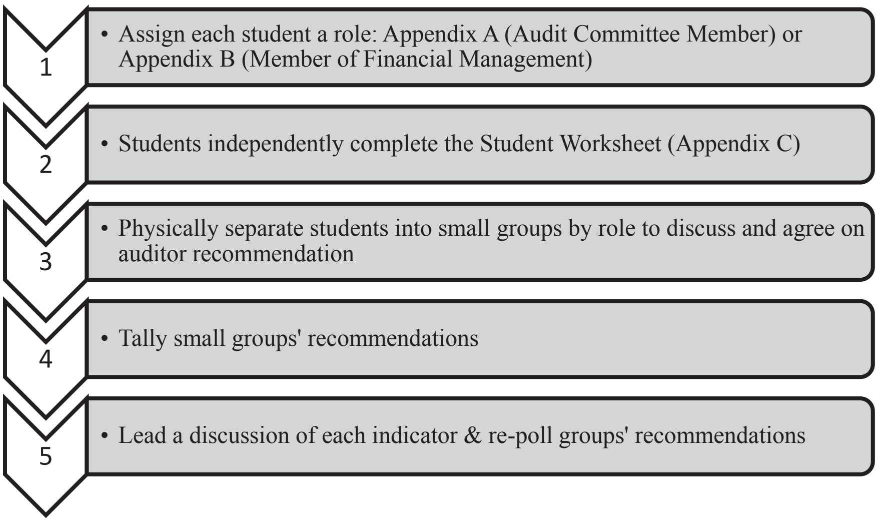

Fig. 1. Instructional steps to complete the activity.

For example, students with last names beginning with the letter A through L are assigned the audit committee member role; those with last names beginning with the letter M through Z are assigned the financial management team member role. Role descriptions are provided in Appendices A and B. Students should be reminded that, to make the class discussion interesting, they should only read the role they are assigned.

Step 2: Outside of class, students independently read the activity and complete the Student Worksheet (Appendix C).[5] Data collected during the most recent validation of the activity suggest students, on average, spend 60 min (range from 45 to 105 min) completing this step. A copy of the completed Student Worksheet should be submitted on the day scheduled for the class discussion to provide evidence that students reviewed the indicators and evaluated the auditors ahead of the discussion.

Step 3: In class, students are physically divided into groups with the audit committee members on one side of the classroom and the financial management team members on the other side. Once the student groups have been separated, students within each role should be divided into smaller groups of three or four members to compare their analyses and conclusions about which auditor to recommend. For example, if a class consists of 30 students, approximately 15 would be assigned the role of audit committee member. These 15 students would be broken into approximately five groups of three members each. The activity is designed such that each auditor has both positive and negative indicators of audit quality; the small group discussions help deepen students' understanding of the concepts and creates a bit of competition among the groups.

Instructors should note that each role has similarities and subtle differences. Both roles have the objective of balancing the need for quality financial information and increasing earnings; however, management's objective of increasing earnings may be more short-term focused than that of audit committee members due to the presence of an incentive bonus arrangement. To increase the likelihood of an interesting dialogue during the group and classroom discussions, students receive the same information to evaluate the auditors and each auditor has both positive and negative indicators of audit quality. Depending on their assigned role, individual students and groups may have differing perspectives when analyzing and ranking the importance of the indicators.

Step 4: Once the groups have reached consensus, the instructor should tally and document, by role, the individual groups' auditor recommendations without asking the groups to justify their responses. We recommend either polling the management team groups first or polling each group's recommendation in writing. Tallying and documenting the groups' recommendations before discussing the importance and relevance of the indicators reduces the likelihood that groups will change their recommendations once the class discussion begins.

Step 5: The instructor asks the groups to identify the primary indicators and other factors influencing their recommendation, including any relevant contextual factors that might affect the efficacy of the audit quality indicators. Students should be able to make comparisons between the two auditing firms and discuss how the indicators can be viewed as enhancing or reducing audit quality depending on how the indicator is measured. Using the (1) guide for the classroom discussion and (2) example, completed Student Worksheet (both available to the instructor upon request – see Section 6), the instructor should direct the classroom discussion to fully vet each indicator in terms of its character (input vs. output) and its potential impact (rating) on audit quality. After the class discussion, groups should be polled again to see if their recommendation of which auditor to engage has changed.

4.3.2. Time required to complete the activity

We suggest students be provided the activity approximately one week prior to the date scheduled for the in-class discussion. The activity can be discussed in one class period, with the instructor determining the depth of coverage and amount of time allocated for in-groups versus full class discussion. If a 75-min class period is available, approximately the first half of the period is used for group discussion (Step 3) and polling of the auditor selection recommendation (Step 4). The remainder of the class period is used to discuss the importance and merits of the individual indicators in terms of auditor selection (Step 5). If limited to a 50-min class period, instructors may assign students to groups (by role) and require the groups meet outside of class to discuss and conclude which auditor they recommend be engaged (Step 3).

4.3.3. Grading the activity

We have used various grading strategies in past conducts of the activity. Points can be allocated to students' efforts in completing the Student Worksheet, for participation in the groups based on peer evaluations or other criteria, and/or for participation in the class discussion. Since thoughtful completion of the Student Worksheet is a necessary but not sufficient condition for engaging group discussions and, for the most part, students readily engage in the group and class discussions, we recommend that grades assigned to the activity be based on completion of the Student Worksheet. Importantly, students should be informed of the grading strategy to be employed at the time the activity is assigned.

As there are no "correct" answers, we recommend points be awarded and grades assigned for completeness and reasonable effort on the student worksheet rather than accuracy and participation in the class discussion. In an auditing course with an overall point

[5] Although others suggest (e.g., Rickards & Friedman, 1978), and we believe, that transferring information provided in the activity narrative to the Student Worksheet aids in encoding information about the relevance and importance of indicators of audit quality, some instructors may consider this "busy work" and may prefer that the first several columns of the worksheet be pre-populated. This option can be achieved by the instructor obtaining a copy of the completed Student Worksheet (see Section 6) and modifying the worksheet to be completed by students as is deemed appropriate.

scheme of 1000 possible points, of which 950 points are assigned to other items (e.g., exams, quizzes, group project, homework), we recommend 50 points (5% of the class grade) be attributed to this activity. Of the 50 points, we typically allocate three-fifths (30 points) to completion of the student worksheet based upon having made entries for each indicator, in each column. The other 20 points are assigned as follows: 20 points if the student clearly participated by volunteering answers to the discussion questions or provided input about the scores they assigned and/or weight they attributed to indicators; 15 points if the student contributed at all to the classroom discussion; and 10 points if the student was attentive but did not verbally contribute to the classroom discussion.

4.3.4. Implementation variations

Alternative indicators of audit quality: A myriad of potential indicators of audit quality exists. The PCAOB first identified a list of more than 40 potential indicators (Dickins, Fay, & Reisch, 2014) and many other indicators have since been explored by the Center for Audit Quality (CAQ, 2016), mandated by the European Union (EC, 2006), and revisited by the PCAOB (PCAOB, 2015). Instructors may choose to omit or add indicators of audit quality from the activity. For the convenience of instructors, ten additional indicators are described in the guide for the classroom discussion which is available upon request (see Section 6).

Eliminating the role of management: Some instructors may believe that auditor selection should be restricted to the views and opinions of audit committee members without consideration of the views and opinions of financial management. In this case, the management team role is omitted and all students are assigned the audit committee member role. Steps required to complete the activity remain the same, but there will likely be less variation in the groups' auditor recommendations and less time will be required to discuss and debrief the activity.

Online discussion board activity: Instructors with time constraints or teaching an online or hybrid course may prefer to include the activity as an online assignment. Use of a course management system's (e.g., Blackboard, Moodle, Sakai) discussion board feature can accomplish this goal and ensures that all students participate in the exercise. If a discussion board is used, Steps 1 and 2 of the activity are the same, but Step 3 is eliminated. Once students have turned in their completed worksheets, Step 4 is modified such that the instructor posts the results of students' recommendations, by role. For example, "75% of members of the audit committee recommend that Firm A be selected to be the auditor of Bradco, and 60% of members of the management team recommend that Firm B be selected." Students should then be instructed to participate in the following (or similar) discussion board:

> "State your role (audit committee or management), then for one of the ten indicators of audit quality, disclose your rating (score) for each of the auditors and describe why you assigned these ratings. No more than three students (assuming a class of 30 students) may discuss a single indicator."

For Step 5, debriefing the activity, based on the guide for the classroom discussion which is available upon request (see Section 6), any indicators, ideas, or considerations omitted from students' posts should be incorporated into the discussion by the instructor using the "Possible questions to stimulate the discussion of this indicator."

Other modifications: In addition to modifications that may be adopted to meet time restrictions or personal preferences, instructors can omit role-playing and simply conduct an in-class debriefing of the student worksheets. Although we believe it reduces the realism of the activity, some instructors may also wish to remove, or direct students to ignore, audit fee information provided by the auditors and ask students to focus solely on the indicators.

5. Instructional efficacy

The activity has been conducted in various forms, validated, and refined over more than three years by five different instructors, at three different universities, in both graduate and undergraduate courses. Feedback collected most recently in two different graduate-level auditing courses at a large public university indicates that students enjoyed learning about how indicators of audit quality might be used in the auditor hiring process. They also enjoyed the role-playing aspect of the activity and appreciated the opportunity to get a glimpse of the auditor hiring process from two different perspectives. Their interest was piqued by the complexities of assessing the indicators and the opportunity to see realistic examples. Example written feedback included, "Great application of course concepts," "Useful for understanding the real-life decisions auditors and clients face," and "It allows you to critically think about the factors that influence audit quality [and how] the role you take gives you a perspective of what is important when choosing an auditor."

While the task was initially challenging, once students gained momentum, they enjoyed debating the appropriate weight to be awarded to each indicator and determining the auditor to be recommended. Many noted the activity gave them "a different perspective on things." Students expressed both verbally and through a feedback survey that they enjoyed the comradery of working with their group members in their assigned role and discussing the different perspectives of individual members. For example, students wrote, "Good, interactive activity – got the class talking about different viewpoints concerning audit quality indicators," "I like that there is no right or wrong answer and that each student has various opinions on why they would select one firm over another," and "Provides interesting group arguments, makes me think of things differently than I normally would."

The students' subjective feedback is supported by measured feedback on the activity and classroom discussion. The latest feedback is presented in Table 1 (two graduate-level classes, two different author-instructors, $n = 41$). Using a four-point Likert scale (with endpoints of 1 = strongly agree and 4 = strongly disagree), comparisons of the mean pre-activity and post-activity responses to questions related to the activity's learning objectives indicate students perceived significant improvement (all differences, $p < 0.001$). Mean scores indicate students perceived the activity's instructions were clear (mean = 1.66, significantly greater than neutral, $p < 0.001$), and they would recommend the activity be used in future courses (mean = 1.50, significantly greater than

Table 1
Student feedback (n = 41).

Response Scale: 1 = strongly agree, 4 = strongly disagree	Mean (Std. Dev.)		Difference
	Pre-activity	Post-activity	
I am able to classify indicators of audit quality as influencers (inputs) or outcomes (outputs) of the audit process	2.88	1.95	0.93*
I am able to identify at least three factors that positively influence audit quality	2.33	1.48	0.85*
I am able to identify at least three outcomes that measure audit quality	2.63	1.73	0.90*
I have a good understanding of the auditor selection process	2.97	1.67	1.30*
I have a good understanding of the role of the audit committee in the auditor selection process	2.48	1.60	0.88*
I have a good understanding of the role of management in the auditor selection process	2.80	1.70	1.10*
I have a good understanding of the role of the auditor in the audit selection process	2.63	1.75	0.88*
The activity instructions were clear		1.66	
I would recommend this activity be included in future course conducts		1.50	
Including this class, how many auditing classes have you taken? (number)		2.22	
Do you have experience working as an auditor? Yes		36%	

* Significant at $p < 0.001$.

neutral, $p < 0.001$). Students' experience (number of courses and experience working as an auditor) were not highly correlated with any of the students' pre-activity responses.

Although not directly comparable due to minor variation in the activity and major variation in the instrument used to validate instructional efficacy, student attitudes and outcomes are similar in prior conducts. For example, feedback collected approximately one year earlier in one undergraduate- and one graduate-level classes taught by two different instructors at two different universities (n = 75) suggest the learning objectives were met (overall mean on all objectives = 4.04 reported on a scale from 1 = strongly disagree to 5 = strongly agree, significantly greater than the mid-point, $p < 0.05$) and that students found the activity interesting (3.97, significantly greater than mid-point, $p < 0.05$). Ninety-six percent of the students stated that they would recommend this case for use at other universities, while four percent reported that they would not recommend the activity.[6] Results were not impacted by university, academic level, or other demographic data gathered. Relatedly, data collected earlier in an undergraduate class were similar (n = 39). Using the same scale, students reported an improved understanding of how indicators influence audit quality (mean = 4.05), and believed the activity was interesting (mean = 4.00), both significantly greater than the mid-point of the scale ($p < 0.05$). The lowest reported mean was related to clarity of instructions (mean = 3.51) and, like feedback from subsequent conducts, students' suggestions have been incorporated into the current version of the activity.

6. Solutions

The following items are available upon request from Anna Johnson-Snyder (johnsonan18@ecu.edu): (1) guide for the classroom discussion, (2) example completed student worksheet, and (3) Excel templates. Ten additional indicators of audit quality adopted from an array of topics discussed by regulators and other constituents (e.g., IAG, 2013; PCAOB, 2015; CAQ, 2016) are also described and available. Depending on the instructor's time constraints and preferences, a discussion of some or all the additional indicators can supplement the activity. However, as activity-specific details of each indicator are not included in the background information, students cannot complete a student worksheet for the additional indicators.

Acknowledgments

This work is dedicated to our late colleague and friend, Rebecca Fay, whose insight it reflects and whose kindness will long be remembered. We are grateful to Veena Brown, Brian Daugherty, and Keith Urtel who provided helpful suggestions about the activity's instruction, three experienced audit partners who provided practical suggestions to help ensure the activity's realism, and attendees at a concurrent session of the 2017 AAA Auditing Mid-year Meeting and several anonymous reviewers for their constructive suggestions for improvement.

Appendix A. Audit committee member

According to SOX Section 301, the audit committee is responsible for the appointment, compensation, and oversight of the work of the engaged auditor, which must report directly to the audit committee. The audit committee's responsibilities also include, but are not limited to, the resolution of disagreements between management and the auditor. In the past, the audit committee has considered management's feedback on selecting an auditor; however, consideration of management's opinion is not required. You are to assume that you and the other audit committee members are independent and have no financial or other affiliation with members of

[6] Recommendations of these students which were primarily related to clarity of instructions have been incorporated in this version of the case (e.g., providing an example in the Student Worksheet).

management.

Importantly, your number one responsibility is to Bradco's shareholders. Arguably, the shareholders' primary objective is for the stock price to increase, which theoretically results in an increase in investors' personal wealth. Stock price increases when demand for the company's stock increases. In simplistic terms, a stock's price represents investors' expectation of the company's net worth (also referred to as the net present value of a company's future, long-term cash flows). Holding all else constant, when current earnings rise above that expected by investors (or "the market"), demand for the company's shares increases causing the stock price to rise. Board members must balance the need for the company to produce reliable financial statements, which fairly present the financial position of the company, with the objective of increasing earnings. If the market has no confidence in the financial statements produced by the company, even if earnings continue to grow, the company's stock price may not increase.

Appendix B. Member of financial management

According to SOX Section 302, as a member of management, you are responsible for Bradco's financial reports which are periodically filed with the Securities and Exchange Commission. Specifically, you must certify (i.e., take personal responsibility) that each report filed was reviewed, does not contain any untrue, omitted or misleading information, and fairly presents, in all material respects, the financial condition and results of operations of the company. To meet this requirement, you supervise the activities of financial accounting personnel and perform procedures necessary to satisfy yourself that Bradco's financial statements contain no material errors.

You are also responsible for establishing and maintaining Bradco's system of internal control over financial reporting, ensuring internal controls are designed to make material issues known, evaluating the effectiveness of internal controls, reporting conclusions about the effectiveness of internal controls, and ensuring that all significant deficiencies and fraud, whether material or not, have been disclosed to the audit committee and the auditors. To meet this requirement, you (along with other members of management) have designed controls to reduce the likelihood that material errors and irregularities will occur, and in the event they do occur, will be detected and corrected on a timely basis. Bradco's internal auditor annually performs tests of key controls to determine whether they are operating effectively.

Beyond just producing financial statements that are free of material misstatement, the board of directors relies on you to operate the business in a manner that increases the profitability of the company. To this end, the board has established an incentive bonus structure for management that is dependent on increasing net income each year. For every $0.01 increase in earnings per share (EPS), $100,000 is added to the management bonus pool. The bonus structure is intended to align management's goals with those of the shareholders – to increase the stock price.

In simplistic terms, a stock's price represents investors' expectation of the company's net worth (also referred to as the net present value of a company's future, long-term cash flows). Holding all else constant, when current earnings rise above that expected by investors (or "the market"), demand for the company's shares increases causing the stock price to rise. If the market has no confidence in the financial statements produced by the company, even if earnings continue to grow, the stock price may not increase. As a member of Bradco's financial management team, you maintain your CPA certification and employ only competent accounting personnel (accounting clerks, etc.) to reduce the likelihood that Bradco's financial statements will contain material misstatements.

Appendix C. Student worksheet

	Indicator	Input to, or output of, audit quality – or both?	Information provided by the firm		Assessment of indicator (1 is low & 5 is high)		Notes on assessments and comparisons	Ranking Importance
			Firm A	Firm B	Firm A	Firm B		
	Example: Continuing professional education (CPE)	Input	Partners 56 h, others 40 h, of which 20 h in audit & 1.5 h ethics	Partners 56 h, others 40 h, of which 20 h in audit & 1–2 h ethics	3	3	Employees of both firms are required to maintain CPE levels consistent with minimum professional standards	
1	Workloads of audit personnel							
2	Industry expertise of personnel assigned to the engagement							
3	Turnover of audit personnel							

4 Expected allocation of engagement hours between preliminary and final phases of the audit
5 Results of employee satisfaction surveys of firm personnel
6 Partner compensation
7 Results of client satisfaction surveys
8 PCAOB inspection results
9 Frequency of restatements for errors
10 Trends in litigation against the auditor

Conclusion: Which firm do you recommend hiring? Are there other indicators of audit quality that would have impacted your hiring recommendation?

Note: The worksheet lists the indicators of audit quality identified as being important to the audit committee. You should complete the worksheet by first classifying each indicator as an input to audit quality or an output. In some cases, the indicator may be both. The "Information provided by the firm" column asks you to summarize information provided in the activity. In the column "Assessment of indicator," you are asked to rate the information (i.e., 1 is low and 5 is high). A "1" suggests the indicator contributes little to, or reduces, audit quality. A "5" suggests the opposite. The "Notes on assessments and comparisons" column provides space for the comparison of the two firms and other notes that may be helpful to you during the class discussion. In the "Rank Importance" column, you should assign a value of one to ten as an indication of how important the indicator was to your decision of which auditor to select for Bradco. A ranking of "1" suggests this indicator is the most influential in the determination of your audit firm recommendation. In the "Conclusion" you should report the accounting firm you recommend engaging to conduct the audit of Bradco's financial statements and identify two or three other indicators of audit quality potentially relevant to Bradco's auditor selection decision. Bring your original, completed Student Worksheet and a copy with you to class. One copy will be retained for the class discussion and the other is to be submitted to your instructor.

Appendix D. Supplementary material

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.jaccedu.2018.07.001.

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