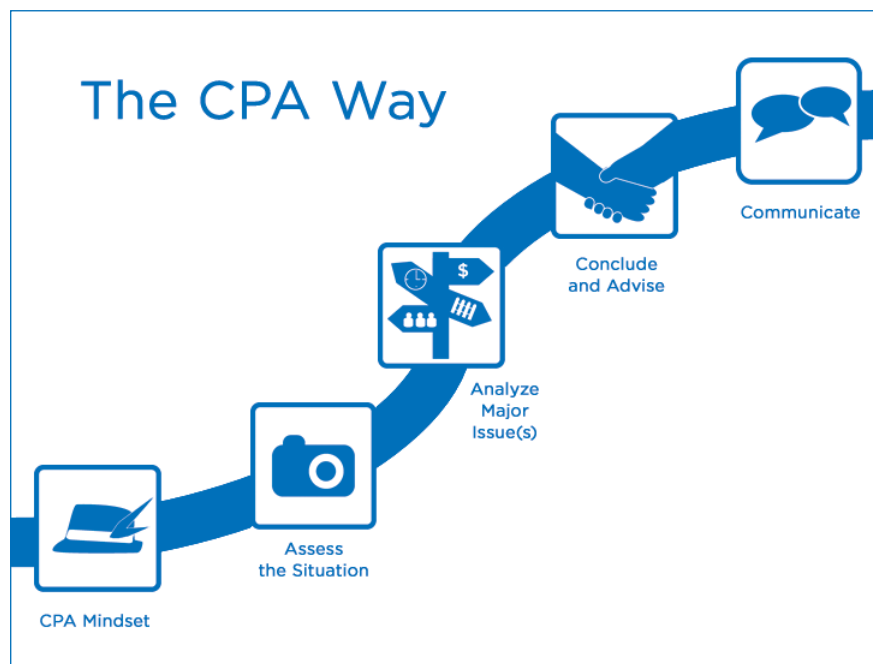


The CPA Way

4 - Analyze Major Issues

This document focuses on *Analyze Major Issue(s)*, the third part of The CPA Way, as shown in the following diagram. **Analysis** is usually the most time-consuming part of the process.



For an overview of *Analyze Major Issue(s)*, see the [video](#) that accompanies this document.

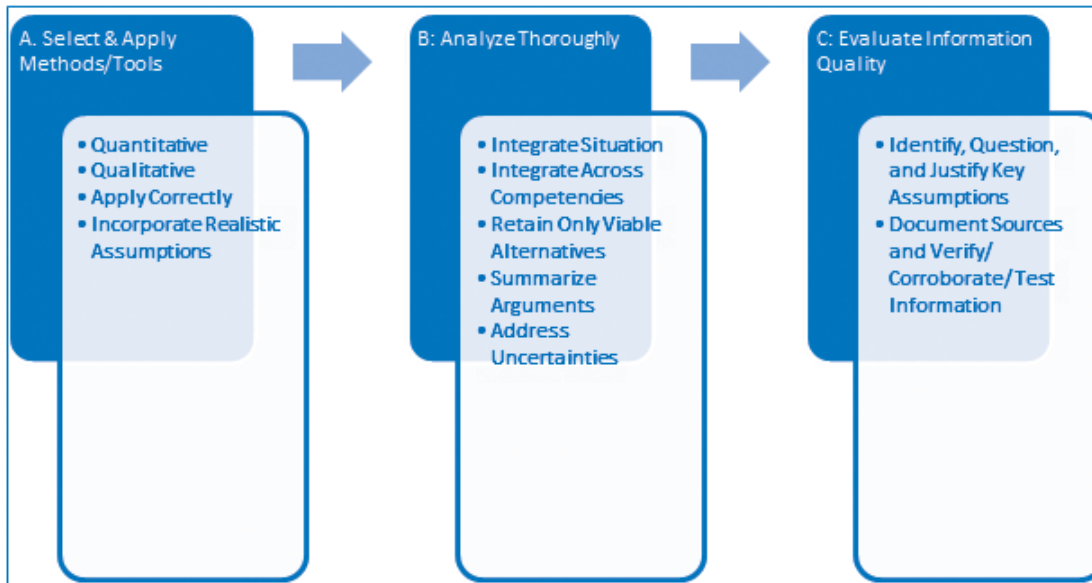
For now, consider how you will go about analyzing a single major issue. Later in this document, we will consider the impact of multiple major issues.



Analyzing an Issue

You can think of **Analyzing a Major Issue** as looking through your camera and seeing a signpost showing many different paths across the landscape. Your goal is to thoroughly explore these paths so that you can gain a deep understanding of the issue to support stronger conclusions and anticipate potential problems. In general, you can think of your work as containing three main elements, as summarized in the following diagram.

Elements of Analyzing an Issue



A. Select and Apply Quantitative and/or Qualitative Methods and Tools

Strong technical competencies will help you select and apply the best quantitative and/or qualitative methods and tools for the situation. If the issue involves technical knowledge with which you are unfamiliar, you may need to begin your analysis by researching and studying the methods typically used by area experts. Below are examples of methods and tools from the CPA Map.

Examples of Quantitative and Qualitative Methods/Tools for Analysis

- Apply a conceptual framework approach to evaluate choice of accounting policy and procedure.
- Assess source documents or information to determine accounting implications.
- Assess the operational or financial reporting implications of the entity's risks and related controls.
- Document and perform an audit work plan with due care.
- Analyze and predict the impact of strategic and operational decisions on the entity's performance, financial position, and cash flows.
- Determine or evaluate relevant information to support decisions made by management and the governing body.
- Prepare, analyze, or evaluate operational plans, budgets, and forecasts.
- Compute, analyze, or assess implications of variances
- Evaluate cost classifications and costing methods for management of ongoing operations.
- Calculate cost-volume profit (CVP), including sensitivity analysis.
- Evaluate sustainable profit maximization and capacity management performance.
- Identify key financial and non-financial performance indicators (KPIs) that are in line with the entity's strategies.
- Investigate the effectiveness of control systems and accountability structures in aligning resources with strategy.
- Analyze risks, risk tolerance and exposure, risk mitigation responses, and the risk monitoring process.
- Perform financial analysis, including ratio analysis, industry benchmarking, trend analysis, and cash flow analysis.
- Evaluate cash flow and working capital.
- Develop or evaluate capital budgeting processes and decisions.
- Analyze, calculate, or forecast a plausible range of values for a business (e.g. discounted cash flow).
- Explain use of alternative forms of ownership.
- Assess the implications of non-compliance with required government remittances.
- Interpret and apply the Income Tax Act (ITA) and various reference sources to the entity's tax issues
- Identify, evaluate, and recommend possible tax-planning opportunities.
- Identify and classify the different sources and types of income for an individual (employment, business, property, capital gains, and other income).

Be sure that you select appropriate methods and tools for the situation. Develop a habit of identifying and thinking carefully about:

- The purpose and type(s) of quantitative and qualitative information gathered/used.
- The purpose of analysis techniques and/or analyses performed.
- Whether the methods and tools are the best choice for your purpose.

A CPA is also expected to apply methods and tools appropriately, including (1) correct mechanics and (2) use of reasonable professional judgment (e.g. incorporating realistic **assumptions** for the situation). Who would trust an accountant who makes calculation errors, or uses illogical assumptions?

Also consider whether multiple methods and tools would be appropriate. Use of multiple methods, especially a combination of quantitative and qualitative methods, often provides superior insights compared to one method alone.

B. Thoroughly Analyze Relevant Information

A key difference between a professional and an inexperienced accountant is the thoroughness with which they analyze information. Inexperienced accountants tend to perform only partial analyses and often bring up irrelevant factors. Professionals focus on the most important relevant information, use a wider range of methods, more thoroughly integrate situational factors, address conflicting information, and allow the possibility of more than just one solution.

Greater experience with a range of problems will help you develop the skill to see more patterns and connects, which will allow you to do a better job of organizing seemingly messy information. You can often begin by modeling your work after examples provided by experts in the field.

The table below provides examples of different approaches you can use to analyze information more thoroughly.

Examples of Methods for Thoroughly Analyzing Relevant Information

- Carefully read and review case/assignment material.
- Look for opportunities to demonstrate deeper technical knowledge.
- Ensure that sufficient relevant information is obtained to satisfy the purpose of the analysis*.
- Ensure thorough exploration of issues and alternatives:
 - Identify a comprehensive set of pros and cons/ strengths and weaknesses for each viable alternative*.
 - Consider all key viewpoints/perspectives.
 - Gain insights from more in-depth scrutiny.
- Expand the type and quality of alternatives, issues, approaches, perspectives, and implications considered by, for example:
 - Brainstorming to identify new ideas, approaches, and perspectives.
 - Questioning assumptions*.
 - Integrating multiple approaches /divergent perspectives.
 - Integrating across competency areas (e.g. financial reporting, strategy and governance, management accounting, audit and assurance, finance, and taxation)*.
 - Setting aside preconceived ideas that might bias or limit analyses.
- When appropriate, use information technology to support and improve analysis.
- Thoroughly interpret/analyze relevant quantitative and/or qualitative information, such as:
 - Cause-and-effect relationships;
 - Cost-and-benefit analysis;
 - Trends, relationships, or other patterns;
 - Risks and rewards;
 - Logical inferences;
 - Alternative interpretations;
 - Analysis/synthesis of key aspects of the situation.
- When appropriate, perform or consider additional analyses such as:
 - Sensitivity analysis*;
 - Methods for monitoring and/or controlling risk of negative outcomes;
 - Extensions beyond immediate, short-term effects to longer-term, indirect implications;
 - Further investigation of unexpected or inconsistent findings;
 - Consideration of uncertainties, contingencies, and future developments*.







- Gather (or identify the need to gather) additional relevant information, as needed, to explore unexpected or inconsistent findings.
- Investigate potential use of unconventional approaches to gather information or perform analyses.

* This topic is discussed further under a separate heading below.



Integrate Key Relevant Situational Factors

When Assessing the Situation, you developed a picture of the problem landscape, including key situational information. As you perform analyses for each major issue, you should return to your situational analysis and actively look for integration opportunities. The following table provides examples of appropriate integration.

Key Type of Situational Information	Example of Integration During Analysis
 Decision Maker Goals/ Objectives	Recognize that the company has a strategic goal of sales growth, and link this goal to analysis of an expansion proposal.
 Other Stakeholder Needs/ Preferences	Identify potential employee resistance to a new performance management scheme.
 Constraints	Recognize that company managers have specified a minimum ROI of 15% on new investments, and link this constraint to analysis of an investment proposal.
 Professional Resources	Use relevant Handbook sections when analyzing the financial accounting treatment of new transactions.
 Other Key Situational Factors	Recognize information about strategic opportunities and threats, and incorporate this information in analysis of an investment proposal.
 Other Relevant Information	Use financial statement data when estimating the incremental cash flows of an investment proposal.

Integrate Across Competency Areas

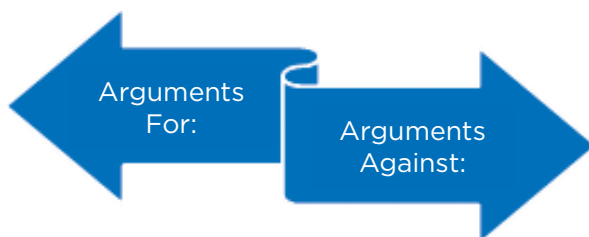
The CPA Mindset includes alertness to opportunities for cross-competency integration. This alertness enhances the quality of analysis by helping you more fully consider the implications of alternatives. Suppose you are analyzing alternative financial reporting methods for inventory. The choice of method affects not just the financial statements. It might also affect taxes, employee bonuses, compliance with debt covenants, and the cost of assurance services. Such effects might turn out to be more important than other factors in the final decision, so they need to be taken into account during analysis.

Rule out Alternatives that are not Viable

You can often reduce the amount of analysis work required by identifying and ruling out any alternatives that are not viable—in other words, that are not feasible for the situation. For example, some alternatives might violate one or more constraints. **Constraints** might be established by decision makers or imposed by others (e.g. debt agreements or regulation), and may include financial or nonfinancial goals/targets or limits to capacity such as resource utilization, people, or skills. Constraints might also include **ethically-prohibited** actions.

Summarize Arguments For and Against Each Viable Alternative

It is rare for the solution to a problem to be perfect. So for each viable alternative, you should thoroughly identify both the strengths and weaknesses. Also, develop a habit of using both quantitative and qualitative arguments, if possible. Avoid the tendency to reach conclusions too soon; your goal is to be as objective and thorough as possible.



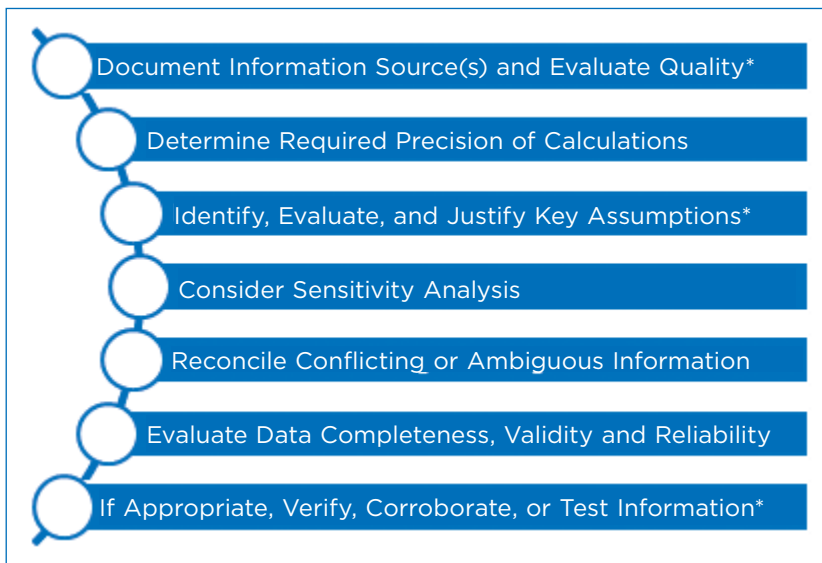
Recognize Major Uncertainties and Perform Additional Analysis

As you analyze information, be on the lookout for uncertainties such as estimated information and competitive threats—anything that could cause actual results to be different than expected. Sensitivity analysis is often a useful tool for shedding light on the potential impact of uncertainty. Be sure to include the results of the sensitivity analysis in your summary of the strengths and weaknesses for each viable alternative. For example, an alternative that is highly sensitive to changes in assumptions might be viewed as a risky option.

C. Evaluate Information Quality Including Sufficiency

With the CPA Mindset, you should always retain at least some doubt about the information used in analyses. So before you finish analyzing an issue, consider the sufficiency and quality of information. At the same time, you should recognize that information is rarely perfect. Professional judgment is needed to decide whether the information you have is sufficient for the situation. Some situations such as an audit of financial statements, require persuasive evidence that is unnecessary in other situations. You can use the approach shown below to evaluate the quality and sufficiency of information.

Evaluating the Quality and Sufficiency of Information



*Discussed further under separate headings below.

Document Information Source(s) and Evaluate Quality

Always document the source(s) of information used—even when you are not required by professional standards to document them. **Stopping to document and think about the source(s) of information might lead you to question the quality and examine the information more carefully.** Perhaps a marketing study is biased, or financial statements contain errors. You want to consider these possibilities before relying on the information.

Identify, Evaluate and Justify Key Assumptions

Most of the analyses you perform will require you to adopt one or more **assumptions**. For example, cost-volume-profit analysis makes specific assumptions about selling prices, costs, and volumes, and the underlying analysis model assumes that operations are within a relevant range of activity in which selling prices and variable costs per unit remain constant and total fixed costs remain constant. If these assumptions do not hold, the results are unreliable. You can use the approach shown below to identify, question, and justify key assumptions.

Approach for Identifying, Questioning and Justifying Key Assumptions

- State key assumptions
Documentation of key assumptions is a good habit to develop. It will encourage you to question the assumptions and allow other decision makers the opportunity to question them, too.
- Evaluate the reasonableness of key assumptions (e.g. appropriateness, relevance, reliability).
- Determine whether key assumptions are sufficiently justified.
- Explain to decision makers the purpose and effects of any key assumptions.

What Is a “Key” Assumption?

An assumption is something you take for granted in your analysis. A key assumption significantly affects the results of your analysis. You might need to perform sensitivity analysis to determine which assumptions have a significant impact.

Verify/Corroborate/Test Information

The words “verify/corroborate/test” might bring to mind an audit or other assurance service. However, there are many other professional situations where an accountant should verify, corroborate or test information. Consider the following examples:

Examples of Deciding to Verify/Corroborate/Test Information

- You are preparing monthly financial statements to be distributed to company management. The company recently experienced turnover in a key accounting position, and you are not sure whether all of the usual adjustments have been made. You decide to perform ratio analysis to identify any unusual relationships for further investigation.
- You are performing a cost-volume-profit analysis, and you notice that the contribution margin for one product is significantly higher than for another product. Based on your knowledge of the customer markets and production processes for each product, you would expect the contribution margins to be similar. In this situation, you decide to verify the selling prices and variable costs used in the analysis.
- A product manager gives you information to be used in a capital budgeting analysis for a proposed new product. When you perform the analysis, the net present value is positive, suggesting that the new product would be a good investment. However, you are not confident that all of the cash outflows have been included in the analysis. Before presenting results to the management team, you decide to investigate the cash flows for similar projects to identify cash flows that might have been omitted.
- Consider the same facts as above. Using sensitivity analysis, you determine results are highly sensitive to assumptions for selling volumes and prices. The data for these assumptions were obtained from a study conducted by an outside market research firm. You do not have the time or budget to test the reliability of the market research results. In your report to the management team, you decide to highlight the source of information for these key assumptions and the sensitivity of results to changes in the assumptions. In addition, you recommend that the company gather additional information to verify the market research findings.

Analysis of More than One Major Issue

When analyzing more than one major issue, you need to be on the lookout for possible overlaps/ links between issues. For example, your analysis of a financial reporting issue might affect adjusting entries when preparing financial statements. Or, a capital budget might include negative cash flows that need to be carried over into analysis of financing options.



Self-Evaluation Checklist: Analyze a Major Issue

Think back to a task you recently completed and consider how well you analyzed a major issue. What would be some criteria that you would expect to broadly apply when confronted with a new task? You can use the checklist in Appendix 2 to reflect on work you have performed or to plan work on a new task.



CPA Mindset and Analysis of Major Issue(s)

As you will recall, you can think of the CPA Mindset as putting on a professional hat when you begin work on a problem. You can enhance the quality of your analyses by paying special attention to the following aspects of the CPA Mindset:

- Performing work with due care, including:
 - Carefully selecting and applying analysis methods/tools;
 - Thoroughly analyzing viable alternatives;
 - Investigating information quality and sufficiency.
- Maintaining objectivity, independence in mental attitude, and professional skepticism, including
 - Identifying and setting aside preconceived ideas or personal preferences;
 - Maintaining at least some doubt about the quality and sufficiency of information.
- Maintaining an alertness to opportunities for cross-competency integration, including potential implications of issues found in one technical area for work in another technical area



Planning for Communication(s)

While analyzing major issues, try to anticipate the types of communication(s) you will provide decision makers. For example, will you give an oral presentation or write a memorandum? Think about the audience(s) for these communications and how you will ultimately need to format information. For example, perhaps you will need to explain spreadsheet calculation to help a non-accountant understand them. Your overall work will be more efficient if you identify these types of communication needs early and address them as you perform work, reducing the need to make later revisions.

APPENDIX 1

Self-Assessment Questions

Question #1

You are performing an analysis to help managers decide whether to outsource a customer service centre. Below are several pieces of information you have collected. Which pieces of information would probably affect the assumption used in your analysis? Check all that apply.

- a. You have estimated that the company could avoid \$250,000 per year in costs for the current in-house customer service centre.
- b. The company has received a quote from the proposed outsource company for a total cost of \$200,000 per year.
- c. The sales manager has investigated the proposed outsource company and has concluded that the quality of service will be at least as good as that provided by the company's current in-house customer service centre.
- d. You read an article describing a study of companies' outsourcing experiences. The study found that companies typically incurred significant costs to monitor and manage their outsource partners, reducing the estimated savings by half.

Question #2

You work for a company that operates a chain of Asian fusion restaurants, and you are analyzing the expected cash flows for opening a restaurant in a new location. Which of the following pieces of information would probably be the LEAST reliable for estimating first-year sales of the new restaurant—and, accordingly, would most likely require corroboration? Hint: Use judgment to evaluate the reliability of each piece of information.

- a. First-year sales for restaurants opened in comparable locations, adjusted for inflation
- b. First-year sales for all restaurants, adjusted for inflation
- c. Average sales across all restaurants last year
- d. Estimated first-year sales according to market research conducted by an independent research company having considerable experience in the restaurant industry.

Question #3

Company management is considering three proposals for new investment projects. The company's policy is to set the hurdle rate for investment at the higher of the risk-adjusted rate of return for the project or 12% (the company's cost of capital). Results from capital budgets for the three projects are shown below.

	Net Present Value Based on	
	Risk-Adjusted Rate of Return	12% Rate of Return
Project A	\$100,000	\$75,000
Project B	(10,000)	80,000
Project C	50,000	60,000
Project D	25,000	(5,000)

In addition, one of the company's values is to not invest in projects located in politically volatile locations. Management's preliminary investigation reveals that Project A is in a location having serious threats of insurrection.

Which projects would most likely to considered as viable alternatives? Check all that apply.

- a. Project A
- b. Project B
- c. Project C
- d. Project D

Question #4

Many problems require the CPA to consider the needs/preferences of diverse stakeholder groups. In which of the following situations would employees MOST likely be considered an important stakeholder group?

- a. Company management is investigating possible outsourcing of its customer service centre, which employs three people.
- b. Company management is investigating a new source of financing to replace the company's existing line of credit.
- c. Company management is investigating alternative locations to build a new production facility to expand the company's productive capacity.

Answers to Self-Assessment Questions

Question #1

a.	Correct	You are assuming that the company could avoid \$250,000 in cost per year.
b.	Correct	You would probably assume that the company would incur a new cost of \$200,000 per year.
c.	Correct	Based on the sales manager's opinion, you would most likely assume that the quality of customer service would not decline if the service centre is outsourced and, accordingly, you would most likely also assume that outsourcing would have no negative impact on sales.
d.	Correct	Based on the article, you would probably assume that the estimated amount of savings from outsourcing should be reduced by about half.

Question #2

a.	Incorrect	First-year sales for restaurants in comparable locations would probably provide a better estimate than information involving all restaurants (either first year or most recent year). This estimate might or might not be more reliable than the estimate from the market research company. Note: This estimate combined with the market research would be more reliable than either measure alone.
b.	Incorrect	Because first-year sales can vary dramatically based on location, first-year for all restaurants would be as reliable as first-year sales for comparable locations. However, this estimate would probably be more reliable than average sales across all restaurants last year, which would include new and well-established restaurants.
c.	Correct	Because first-year sales are likely to be different than continuing sales, this information would be less reliable than first-year data for comparable or for all restaurants. It would probably also be less reliable than market research, which can take into account the location as well as other factors that would influence sales for the new location.
d.	Incorrect	Because market research can take into account factors that might be unique about the new location and the time period of the restaurant opening, this information would probably be more reliable than average sales across all restaurants or first-year sales for all restaurants. It might or might not be more reliable than first-year sales for comparable restaurants. Note: This estimate combined with first-year sales in comparable locations would be more reliable than either measure alone.

Question #3

a.	Incorrect	Project A has positive NPV under both columns, which means that its expected return is satisfactory regardless of which hurdle rate is used. However, Project A does not satisfy the company's value of prohibiting projects in politically volatile locations, so it would be classified as not viable.
b.	Incorrect	Because the NPV under the risk-adjusted rate of return is lower than under a 12% rate of return, we can assume that the risk-adjusted rate of return is higher than 12%. Therefore, the hurdle rate for this project is the risk-adjusted rate of return. Because Project B has a negative NPV under the risk-adjusted rate of return, the project would be classified as not viable.
c.	Correct	Project C has positive NPV under both columns, which means that its expected return is satisfactory regardless of which hurdle rate is used. There is no indication that it violates any other constraints. Therefore, this project would be classified as a viable alternative.
d.	Incorrect	Because the NPV under the risk-adjusted rate of return is higher than under a 12% rate of return, we can assume that the risk-adjusted rate of return is lower than 12%. Therefore, the hurdle rate for this project is 12%. Because Project D has a negative NPV under the 12% rate of return, the project would be classified as not viable.

Question #4

a.	Correct	Of the three options, this answer explicitly involves employees. Although it is possible to argue that three employees are too few to be considered a key stakeholder group, all employees might be stakeholders in this decision. Other employees might worry that their work activities will be outsourced, too. Or perhaps the company has a "family" atmosphere, making the welfare of the three employees everyone's concern.
b.	Incorrect	It is unlikely that a new source of financing would impact the work or well-being of employees, so this issue probably would not require consideration of employees as a stakeholder group.
c.	Incorrect	Building a new facility to expand productive capacity will most likely involve hiring new employees, who typically would not be viewed as a stakeholder group in the decision. However, we do not know whether any existing employees might be asked to work at the new location. Existing employees might or might not be interested in such a move, and any transfer of employees would affect the remaining employees. Thus, it is possible to argue that this answer is "correct"—i.e. that the CPA should consider employees as a stakeholder group in this decision.
d.	Correct	Of the three options, this answer explicitly involves employees. Although it is possible to argue that three employees are too few to be considered a key stakeholder group, all employees might be stakeholders in this decision. Other employees might worry that their work activities will be outsourced, too. Or perhaps the company has a "family" atmosphere, making the welfare of the three employees everyone's concern.

APPENDIX 2

Self-Evaluation Checklist: Analyze Major Issue(s)

You can use this checklist to evaluate work when Analyzing Major Issue(s).

	Yes	No	n/a
1. Are analyses performed using the most appropriate quantitative and qualitative methods/tools?			
2. Are all analysis methods/tools applied correctly?			
3. Is only relevant information used in the analysis (i.e. omitting irrelevant information)?			
4. Does analysis focus on viable alternatives or conclusions, with any alternatives or conclusions that are not viable ruled out?			
5. Are viable alternatives/conclusions analyzed thoroughly? Consider questions such as these: <ul style="list-style-type: none"> • Are findings interpreted logically? • When applicable, did you consider different interpretations of rules, standards, or other information for the situation? • Have differing viewpoints been considered sufficiently? • How might depth of technical knowledge be demonstrated in this problem? • In what ways might analyses be expanded? • What are the pros and cons (or strengths and weaknesses) of each viable alternative? • Do any unexpected or inconsistent findings require further exploration? • Have uncertainties, contingencies, or further developments been considered sufficiently? • Should sensitivity analyses be performed to better understand alternatives or the situation (e.g. risks)? • When you began working on this problem, did you have a preference for one alternative or conclusion? If so, how did you ensure objectivity as you analyzed information? 			
6. When appropriate, is information about the situation integrated into the analysis? Consider key information such as: <ul style="list-style-type: none"> • Decision maker goals/objectives; • Other key stakeholders and their needs/preferences; • Constraints (internally- or externally-imposed); • Professional resources; • Key situation factors such as economic circumstances, business opportunities/threats, and risks; • Other available information such as financial statements, memoranda, interviews, and analyses. 			

	Yes	No	n/a
7. Are all key assumptions clearly identified (including spreadsheets)?			
8. When appropriate, are key assumptions questioned, analyzed (e.g. investigated using sensitivity analysis or tested for reasonableness), and justified?			
9. Are key sources of information clearly identified (including spreadsheets)?			
10. When appropriate, has the quality and sufficiency of information been questioned and/or tested? Consider questions such as these: <ul style="list-style-type: none"> • How reliable are the information sources? • How precise do calculations need to be? • Is there any conflicting or ambiguous information? • Are data sufficiently complete, valid, and reliable for the purpose of the analysis? • Should any tests be performed to verify or corroborate information? 			
11. If there is more than one major issue, have you considered whether/how the analysis for this issue might affect analyses for one or more other issues?			



The CPA Way by CPA Canada is licensed under a **Creative Commons Attribution-NonCommercial-No Derivatives 4.0 International License**.

Permissions beyond the scope of this license may be available at <https://www.cpacanada.ca/en/copyright>.

Chartered Professional Accountants of Canada, CPA Canada, CPA are trademarks and/or certification marks of the Chartered Professional Accountants of Canada.

© 2015, Chartered Professional Accountants of Canada. All Rights Reserved.