A Forensic Accounting Case: A Data Analytic Mindset

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In 2010, the Noel-Levitz Employer Satisfaction Survey of over 900 employers reported that critical thinking is the second largest negative gap between performance satisfaction and expectation. Accounting professions including AICPA, accounting firms, and universities and colleges are pushing to improve students’ critical thinking skills. According to the Foundation for Critical Thinking, “critical thinking is that mode of thinking—about any subject, content, or problem—in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it.” A well-cultivated critical thinker should be able to raise important and relevant questions and problems, gather and assess relevant information, consider alternative views, arrive to well-reasoned conclusions or solutions, and communicate effectively with others during the problem-solving phase, and afterwards with solutions or conclusions. Here is the link to the Miniature Guide to Critical Thinking: Concepts and Tools by Dr. Richard Paul and Dr. Linda Elder, published by the Foundation for Critical Thinking: https://www.criticalthinking.org/files/Concepts_Tools.pdf. Data analytic mindset requires students to think critically. This case study is intended to help students identify the goal of the task at hand (identify possible suspicious transactions within the Travel and Expense [T&E] process), raise relevant questions, identify data to answer questions, and reach conclusions.

Introduction
Nathan is an internal audit manager of a large retail company which consists of several subsidiaries and full-line and specialty retail stores across the U.S. The public company is traded on NASDAQ. The company’s headquarters is located in a large metropolitan city in the Midwest. For a company with forty billion dollars annual revenue, T&E is often the second largest operational cost, after salaries. All full-time salaried associates are issued a company owned Visa card to pay for travel and certain related expenses. Each card is restricted by Merchandise Category Codes (MCC) based on the specific associate and business needs. A MCC is a four-digit number representing the primary category in which the merchant does business and may be used by credit card companies to offer cash back rewards or reward points for spending in specific categories.

Associates are required to file expenses charged on their Visa cards with the supporting receipts within the Concur system for processing. In addition, they have to state the purpose of the charges. The Concur system is a business T&E management software used by the company. Nathan, as the internal audit manager, has access to credit card statements of all company issued cards online and can download the transaction data for further analysis. In addition, Nathan can access information within the Concur system. Therefore, one analysis Nathan can do is to match the expenses employees reported within the Concur system and the charges on the credit card statements. Periodically, Nathan runs some analyses to identify suspicious T&E expenses.

You, as an accounting major student, work as an intern for this company under Nathan’s supervision. Nathan is CIA and CPA. You are interested in forensic accounting and have been asking Nathan questions about becoming a forensic accountant. To give you a taste of forensic accounting work, Nathan asks you to examine employees’ Visa card usage in the company. Here are some questions Nathan poses:

1. Considering the T&E process, what fraud schemes can employees of the company employ to perpetrate T&E related fraud?
2. To be specific, what fraud schemes are likely committed by employees in relation to company-issued credit cards?
3. Given the information above, what type of analyses would you likely run? What data would you need to run the analyses you have in mind?

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(4) Before conducting analyses, do you have any question to ask Nathan?

**Phase I:**

Answer the preceding questions. Then consider what your next step would be and why.

**Phase II:**

After identifying possible fraud schemes during the class discussion of phase I requirements, the instructor asks students to identify their next steps in the investigation. The focus would be on data analytics. Additional information is available to the instructor to present to students (included in the teaching notes). Teaching notes are available upon request from the corresponding author.