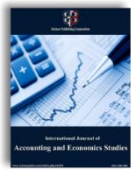
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Research paper



Uncovering Corporate Fraud: Forensic Simulation Applied to The Chiquita Brands Case in Colombia

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Abstract

This article presents a didactic simulation designed as a pedagogical tool, not an empirical investigation, to enhance the teaching of forensic auditing in higher education. The pedagogical use of practical cases for teaching forensic auditing has proven to be an effective tool for students to understand the dynamics of fraud from a critical and empirical perspective (Felski, 2024). Inspired by the dual approach proposed by Felski, where students first "commit" fraud and then detect it as forensic auditors, this study replicates the logic in a real-life context, analyzing the documented case of Chiquita Brands International Inc., a company that, according to court documents and testimonies, made systematic payments of more than $1.7 million to paramilitary groups in Colombia between 1997 and 2004, under an accounting structure designed to conceal the illegality of such transactions.

The evidence contained in the report submitted to the International Criminal Court reveals that the payments were not only known and authorized by high-level executives but were also integrated into internal accounting systems that deliberately omitted traceability and the true purpose of the transfers. Such practices offer an invaluable opportunity for students to analyze evidence of fraud, document accounting inconsistencies, and examine the mens rea (malicious intent) in the way financial contributions to the AUC, designated a terrorist organization by the U.S. since 2001, were designed and executed.

The proposed educational exercise consists of reconstructing the accounting flows and internal control systems used by Chiquita, identifying regulatory gaps, and applying digital forensic audit techniques to uncover how the concealment schemes were structured. It also promotes ethical reflection on individual and corporate responsibility in the commission of financial crimes of international impact. This methodology strengthens not only the technical competence of auditors in training, but also their ethical judgment in complex situations where fraud is masked under strategic "business" decisions.

Keywords: *Fraud Detection Case; Corporate Fraud Case; Forensic Accounting Case; Occupational Fraud; Forensic Simulation; Internal Audit; Corporate Liability; Financial Crimes.*

1. CASE: Corporate fraud and financial crimes in international operations

Phase 1: The pressure behind the decisions

After earning a degree in public accounting in the U.S. and obtaining your CPA certification, you were hired by Chiquita Brands International, Inc., a multinational agribusiness company. You initially started as a financial analyst, rising over more than a decade to become Director of Financial Control for its subsidiary, Banadex, in Colombia. In that position, you had control over accounts payable, contract management with security service providers, financial and legal matters, and compliance reporting to the Cincinnati headquarters.

In early 2000, you received threats against your physical safety and that of your family from illegal armed groups. The company's banana operations were located in regions controlled by the United Self-Defense Forces of Colombia (AUC). Your superiors in the U.S. were aware of the violent environment, but you were expected to maintain the profitability of the operation.

The U.S. government classified the AUC as a terrorist organization in 2001. Despite this, headquarters asked you to seek "local solutions" to guarantee the security and operational stability of the farms. Indirect payments through rural security cooperatives (CONVIVIR) were discussed, which you agreed to to protect your staff, maintain production, and secure your employment. The cumulative payments reached USD 1.7 million between 1997 and 2004. The findings of the KPMG (2013) study analyzed the impact of fraud on businesses, revealing that nearly 7 out of 10 companies operating in the country experienced at least one instance of fraud within the past twelve months, resulting in estimated economic crime losses of $3.6 billion, equivalent to 1% of the national GDP. Furthermore, the study found that 51% of the total economic damage was caused by financial fraud (KPMG, 2013, p. 7). The likelihood of detecting errors is generally higher than that of detecting fraud, since fraud is usually accompanied by acts specifically designed to conceal its existence." (Institute of Accountancy, 2013, p. 2)

Sociopolitical context of the case

The Chiquita Banadex case cannot be fully understood without considering the sociopolitical landscape of Colombia during the 1990s and early 2000s, a period marked by widespread violence, the active presence of illegal armed groups, and weak state governance across many

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regions. In this context, multinational corporations operating in conflict zones faced extreme operational pressures, leading to perverse incentives to make payments to armed actors, often framed as necessary for "protection." This dynamic reflects the first element of the fraud triangle: pressure. Threats to employee safety, systematic extortion, and the absence of institutional guarantees created an environment conducive to ethically and legally questionable corporate decisions.

Corruption and fraud rationalization

Furthermore, structural corruption at various levels of local and national government enabled these practices to go unpunished or even be tacitly endorsed, thus reinforcing the second element of the fraud triangle: opportunity. The rationalization of fraud was often grounded in narratives of business survival, job preservation, and asset protection, obscuring the ethical implications of financing groups responsible for human rights violations. As such, the Chiquita case illustrates how forensic analysis must go beyond accounting evidence and incorporate an understanding of the structural and cultural factors that facilitate fraud in high-risk environments like Colombia. The fraud triangle is detailed below.

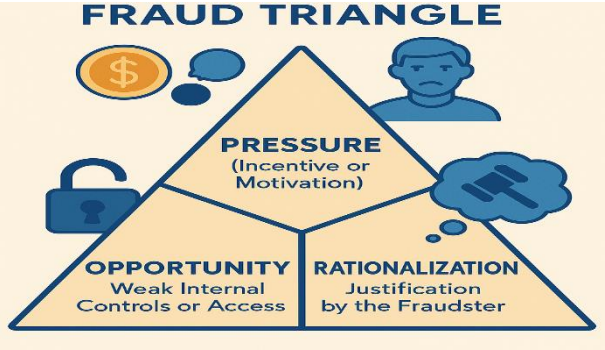


Fig. 1: N.2 Fraud Triangle.

Source: Prepared internally.

Question 1:Using the fraud triangle, assess the likelihood that this manager has committed organizational fraud.

Question 2:What alternative options did you have to protect operations without resorting to illegal payments?

Question 3:Who are the stakeholders in this scenario? What's at stake for each?

Phase 2: Fraud Structuring

After years of operating under pressure, you decided to implement a systematic scheme of hidden payments to the AUC. To achieve this:

1) Strategy used: You channeled payments through fictitious contracts with local security providers associated with CONVIVIR, who acted as a front for the AUC.
2) Concealment: The payments were recorded in the accounts for “property operating services” and “property protection expenses,” dispersed across multiple accounting accounts so as not to raise red flags.
3) US Headquarters: Although they were aware of the situation, they never received formal written instructions to stop the payments. Management preferred to maintain a formal distance while approving financial reports without objection.

Question 4:List three ways of committing fraud with their risks and benefits:

Table 1: Methods used, associated risks, and perceived benefits.

Method	Risks	Benefits
1. Fake contracts with security companies	Discovery in an external legal audit or by the SEC	Contractual coverage appears legal
2. Dispersed operating expense accounts	Low risk if there is no analytical review of trends	Break up amounts and reduce suspicion
3. Handling of petty cash at local offices	High risk of internal complaints or manual errors	Easy execution and little digital tracking

Source: Prepared internally.

Most viable option: #2, due to accounting dispersion and lower external visibility.

Phase 3: The accounting cover-up

The fraud reached the estimated total amount and was recorded in the accounting records as "external operational services," concealed in 24 smaller payments within different regional offices. To cover it up:

- They justified themselves with manipulated safety reports.
- Payment orders signed by third parties were altered.
- Internal audits were conducted quarterly, so payments were scheduled immediately after their visits.

In the event of an audit, responses and backups were prepared with altered dates, copies of archived contracts that hadn't actually been executed, and pre-printed authorized signatures. Auditable electronic documents were not generated; rather, PDF scans were used to avoid traceability.

Phase 4: Forensic audit of the Chiquita-Banadex case

After five years in the forensic audit department of an international organization, you are assigned to investigate Banadex's financial statements and records between 2002 and 2004, due to suspected fraud related to payments to illegal groups.

You'll be given access to purchase records, service orders, payments, and financial correspondence. Your job is to use tools like IDEA or Tableau to identify anomalous patterns.

While the simulation relies on proprietary software such as IDEA, Tableau, and Power BI to conduct forensic analyses, it is essential to consider the technological and financial limitations faced by many academic institutions, particularly in developing countries. To enhance accessibility and ensure broader adoption, the implementation guide should offer alternatives based on open-source tools. For example, Python and R are widely used in data analytics, providing powerful libraries for forensic accounting, such as pandas, matplotlib, and scikit-learn in Python, or tidyverse and data. table in R. These platforms not only reduce software costs but also promote coding literacy, reproducibility, and customization of fraud detection models. Incorporating such alternatives makes the simulation more inclusive and adaptable to diverse educational contexts without compromising analytical rigor.

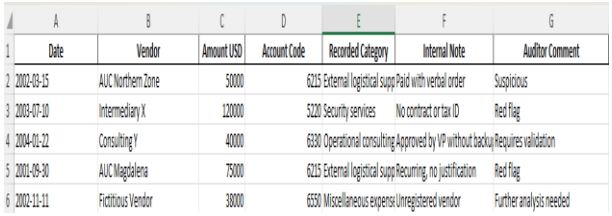
Worksheet – Software used: IDEA

Table 2: Summary of tests performed and key findings.

Test performed	Result
Analysis of payments by supplier per month	24 repeated payments between $60,000–$90,000 to 3 suppliers with no previous history
Analysis of contracts and execution dates	Contracts signed on the same day of payment, without a compliance report
Flow by cost center	Concentration of expenses in Urabá and Magdalena locations without increased production
Security log	No incident reports were found that would justify additional payments.
Duplicate signature detection	Matching digital signatures in contracts with previous scans

Source: Prepared internally.

As part of the simulation, we developed a dataset of fictitious transactions based on public legal records and forensic audit criteria. This dataset is available as supplementary material in the file Chiquita_Forensic_Simulation_EN.xlsx. A sample of the simulated entries is shown in Table \ref{tab:suspicious_transactions}, including vendor details, account codes, internal notes, and auditor comments used to trigger red flag analysis.



	A	B	C	D	E	F	G
1	Date	Vendor	Amount USD	Account Code	Recorded Category	Internal Note	Auditor Comment
2	2002-03-15	AUC Northern Zone	50000	6215	External logistical supp	Paid with verbal order	Suspicious
3	2003-07-10	Intermediary X	120000	5220	Security services	No contract or tax ID	Red flag
4	2004-01-22	Consulting Y	40000	6330	Operational consulting	Approved by VP without backu	Requires validation
5	2001-09-30	AUC Magdalena	75000	6215	External logistical supp	Recurring, no justification	Red flag
6	2002-11-11	Fictitious Vendor	38000	6550	Miscellaneous expense	Unregistered vendor	Further analysis needed

Fig. 2: N. 2 Fictitious Transactions Based on Public Legal Records and Forensic Audit Criteria.

Phase 5: Memorandum to Management

Summary of findings:

Systematic and covert payments totaling $1.7 million were identified between 1997 and 2004 to fictitious security-related vendors, with no evidence of actual services rendered. The accounting justification was based on operating expenses without verifiable documentation. The electronic signatures used correspond to reused and altered documents.

Legal recommendations:

- Criminal action for money laundering and financing of terrorist organizations.
- Civil lawsuit for asset recovery and reparation to the Colombian State.
- Notification to international authorities (ICC, SEC) for formal investigation.

Risks:

- Reputational damage to the brand.
- Legal exposition of current and former executives.
- Possible sanctions for non-compliance with international laws.

Benefits:

- Reduction of future legal risk.
- Alignment with international anti-corruption standards.
- Strengthening business ethics policies.

2. Case learning objectives and implementation guidance

Case learning objectives

The revelation of international business operations implicated in the financing of illegal armed groups, as documented by the International Criminal Court with respect to Chiquita Brands International, highlights the need to strengthen future public accountants' skills not only in forensic accounting, but also in ethical, legal, and critical-thinking competencies in the face of corporate and transnational fraud.

This case study aims to help students understand, through simulation, how an accounting fraud scheme can be structured within a multinational company and, subsequently, how to apply forensic detection techniques to uncover it. Inspired by the experiential learning approach proposed by Jepperson (2016), DiGabriele (2012), and Alshurafat et al. (2020), this case allows for practical immersion through role-playing: first as the official who plans and executes a fraud under pressure, and then as the auditor who investigates it with digital and accounting forensic tools.

Unlike other case studies, this one is based on a real event (the Chiquita-Banadex case) and promotes a rigorous analysis of internal control systems, accounting flows, and the ethical decisions involved. The objective is for students to simulate the design, execution, and concealment of an accounting fraud and then face the professional challenge of uncovering it in their role as internal or forensic auditors. The simulated data can be supplemented with records extracted from the original court report, reinforcing the validity of the scenario presented.

Specific learning objectives

1) Understanding the thought process of organizational fraud perpetrators, in real contexts of pressure, rationalization, and opportunity.
2) Identify weaknesses in internal control and how these can be exploited in transnational settings, especially in environments of high violence or institutional corruption.
3) Gain experience in digital forensic auditing techniques and tools, such as IDEA, Power BI, or Tableau, to identify financial irregularities, concealment patterns, and trace hidden payments.
4) Evaluate the legal avenues for remediation available to victims of fraud, including criminal, civil, or international actions, as have been exercised before the International Criminal Court and other courts of justice.

Guidance for implementation

This case is implemented in five phases (see section I. CASE) and is designed to be developed in teams of students from public accounting, auditing, or forensic accounting graduate programs. The suggested duration is three to five academic sessions:

- In the first two sessions, students assume the role of the Chiquita Colombia executive (Banadex), develop the fraudulent plan, and apply accounting concealment techniques.

- In subsequent sessions, other students take on the role of forensic auditors, applying analytical software to the altered records.
- Finally, a critical discussion of the findings is conducted, considering the ethical, reputational, and legal impacts of the case.

The development of this case also provides a space for ethical reflection, as students must justify their decisions in both the roles of the offender and the auditor. This approach allows the training process to go beyond technical skills, but also strengthens responsible decision-making in complex business contexts.

3. Implementation guide

Overview

This case study is based on the forensic report of the real-life Chiquita Brands International Inc. case and is designed for use in forensic accounting, financial auditing, or corporate ethics courses. Using an experiential learning approach, students simulate an occupational fraud scheme and then assume the role of internal auditors responsible for detecting it. Simulated data based on the report submitted to the International Criminal Court are used. The case study fosters technical (analytical, accounting, and legal) and metacognitive (ethical judgment, problem-solving, teamwork) skills.

Phase 1: Fraud Triangle Analysis

Aim: Understand the factors that motivate, enable, and rationalize corporate fraud.

Activity: In small groups, students analyze the context of the Chiquita-Banadex case, applying the fraud triangle (pressure, opportunity, rationalization). Each group creates a visual diagram and answers three questions:

- What personal and organizational pressures did managers face?
- What opportunities allowed fraud within the accounting system?
- How did those involved justify their decisions?

Delivery: Infographic or concept map. Can be made on cardstock or Canva.

Suggested duration:30 minutes

Weighing:10 Minutes

Phases 2 and 3: Design and concealment of the fraud

Aim: Simulate the design of a fraud scheme and its subsequent accounting concealment.

Activity: Students receive an Excel file based on the real-life case, which includes accounting data for suppliers, operating expenses, payments, and cost centers. They must:

- Creating a fraud scheme involving illegal payments through fictitious suppliers.
- Limit fraud to one cycle (e.g., purchasing or inventory).
- Make credible changes to the data (for $1,000,000 or its equivalent in local currency).
- Record the changes made, justifying how they are covered in the financial statements.

Teacher review: Before continuing, the instructor compares the original and modified files. Removes references to the group and redistributes the cases to other teams.

Suggested duration of sessions is 60 minutes each.

Deliverables: Altered dataset, fraud narrative, accounting justification.

Weighing:20 points Phase 2 + 20 points Phase 3 = 40 points.

Phase 4: Forensic audit with software

Aim: Detect accounting fraud using digital forensic auditing techniques.

Activity: The groups assume the role of internal auditors and receive an altered dataset (from another group). They use tools such as Excel, Power BI, Tableau, or IDEA to:

- Identify anomalous patterns (repetitive payments, irregular amounts, duplicate accounts).
- Apply forensic testing such as supplier analysis, trend curves, and cost center metrics.
- Document your findings on a standardized worksheet.

Delivery: Audit sheet with tests applied and results.

Suggested duration:90 to 180 minutes.

Weighing:30 points.

Phase 5: Drafting the professional memorandum

Aim: Prepare a professional report with the findings and recommendations of the case.

Activity: The groups draft a memorandum addressed to the board of directors, where:

- They describe verified facts (without making personal judgments).
- They explain how they detected the fraud and the key clues.
- They propose corrective measures and viable legal actions.

Suggested duration:45 minutes (extra class).

Delivery: Memorandum in Word format, 2 pages max.

Weighing:20 points.

The estimated schedule (4.75–5.75 hours) can be easily adapted to different formats depending on the academic level (undergraduate or graduate) and institutional time availability. In undergraduate courses with limited class hours or less prior experience, Phases 2 and 3 can be combined into a single session focused on fraud schemes and accounting concealment (90 minutes), while Phase 4 can be simplified by using pre-designed datasets and freely accessible software (e.g., Excel or Google Sheets instead of IDEA or Tableau), thus reducing the lab time to 60–90 minutes. For graduate programs or courses with greater technical depth, Phase 4 can be expanded into multiple sessions that include exploratory data analysis and the creation of forensic dashboards. Additionally, Phase 5 can be implemented as asynchronous collaborative work, reinforcing legal and ethical reasoning through discussion forums or recorded presentations. This flexibility allows the simulation to be implemented in both intensive modules and semester-long courses structured by thematic units.

Estimated schedule and points distribution

Table 3: Phases of the training program, duration, and evaluation criteria.

Phase	Previous knowledge	Estimated time	Mode	Points
1	Fraud Triangle	30 min	In class	10
2	Fraud schemes	60 min	In class	20
3	Accounting concealment	60 min	In class	20
4	Data analysis and software	90–180 min	Laboratory	30
5	Professional writing and legal ethics	45 min (extra class)	Individual/group	20
Total	—	4.75–5.75 hours	—	100

Source: Prepared internally.

Possible variations of the project

- Role Assignment: Within the group, students may be assigned as controller, treasurer, purchasing manager, etc. They may plan collusion.
- Frauds per cycle: You can work on payroll, accounts receivable, fixed assets, or purchasing fraud.
- Currency and local regulation: The fraud may be designed in Colombian pesos or other local currency, depending on applicable legislation.
- Cross-assessment: Frauds can be audited by groups other than the creators, generating a "challenge and response" system.

The case of Chiquita Brands International Inc. represents an ideal scenario for applying active pedagogical methodologies in the training of forensic auditors. The complexity of the accounting schemes, the geopolitical context, and the magnitude of the financial crimes allow students to develop technical competencies in evidence analysis, fraud detection, internal control assessment, and the application of digital auditing tools. Moreover, the exercise encourages a deep understanding of the ethical dilemmas associated with corporate decision-making, providing a space for critical reflection on business responsibility in contexts of violence and corruption.

It is important to emphasize that this study constitutes a didactic simulation intended for educational purposes, rather than an empirical investigation in the strict sense. The analysis presented is not based on fieldwork or primary data collection but on verified secondary sources, organized with a pedagogical objective. In this way, the article proposes a replicable model for accounting and auditing education that integrates the study of real cases with the comprehensive development of professional and ethical skills in future auditors.

This teaching model, based on a real-life case and adapted with manipulable accounting datasets, enables the training of forensic auditors with real-life skills, ethical thinking, and a comprehensive legal awareness.

4. Teaching notes

The teaching notes for this case are available here. [Annex Document]

- Chiquita_Forensic_Simulation_EN.xlsx: Includes four sheets with simulated data: suspicious transactions, cost center summary, red flags, and internal control recommendations.

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