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PERSPECTIVES

The Role of Forensic Accountants in Detecting Fraud in Business Interruption Claims

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INTRODUCTION

Business interruption claims are generally closely scrutinized by insurance carriers and can range from thousands of dollars to claims exceeding $100 million. Insurance carriers often seek the assistance of either internal or external forensic accountants to analyze such claims. In the course of their analysis, forensic accountants often detect the possibility of fraud in a claim, prompting further investigation by the carrier.

This paper details the role forensic accountants play in identifying and analyzing fraud in business interruption claims and explains the considerations by insurance carriers when hiring external accountants. It offers step-by-step guidance for forensic accountants who are brought on to these complex engagements by insurers.

This discussion begins by defining some of the terms and potential players in business interruption claims that are examined for fraud. First, what is a business interruption? Generally, a business interruption occurs when a specific event (examples include fires, floods, explosions, hurricanes, tornados, and pandemics) causes a negative financial impact to the operations of a business over some period.

Second, what is forensic accounting and [what does a forensic accountant do?](#) The AICPA (the governing body of professional accountancy in the United States) defines forensic accounting as "…the application of specialized knowledge and investigative skills possessed by CPAs to collect, analyze, and evaluate evidential matter, and to interpret and communicate findings in the courtroom, boardroom or other legal or administrative venue."[1] Therefore, professional accountants, mostly CPAs, conduct forensic accounting engagements. A subcategory of forensic accounting is fraud examination, which may be conducted by either accountants or nonaccountants.

Third, what is fraud? According to Black's Law Dictionary, fraud is "a knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment." The four major elements of fraud are: (1) false statement of a (2) material fact which is (3) willfully made with an (4) intent to deceive.

While fraud may not be present in every business interruption claim, it is more often discovered in claims examined by forensic accountants who are both experienced and knowledgeable in fraud detection. The ACFE reported in its 2020 Global Study on Occupational Fraud and Abuse, Report to the Nations, that fraud is a global problem affecting all organizations worldwide. The 2020 study, covering 2,504 cases from 125 countries, found fraud caused total losses exceeding $3.6 billion USD[2]. The same study estimated that organizations lose five percent of their revenue each year to fraud[3].

Business Interruption Claims

A business interruption is the loss sustained by a business or entity due to incidents beyond their control which result in the inability to carry out business functions. Such losses may trigger business interruption coverage through various policies with the entity's insurance carrier and can be defined as the "necessary interruption of business caused by loss, damage, or destruction by perils insured against real and personal property."[4]

The relevant policy defines the actual coverage, loss calculation methods, and limits of coverage for business interruption claims. But generally, the insured loss is calculated by one of the following three methods:

1. The actual loss of business income consisting of net income and continuing normal operating expenses;

2. Lost revenues less non-continuing expenses; or

3. "Should have been profit" less actual profit.

Each of these methods are addressed in greater detail later in this discussion.

[1] AICPA Practice Aid 10-1, Serving as an Expert Witness or Consultant.
[2] ACFE 2020 Global Study on Occupational Fraud and Abuse, Report to the Nations, page 8. Report may be downloaded for free at https://www.acfe.com/report-to-the-nations/2020/.
[3] Ibid, page 4.
[4] The Business Interruption Book, Torpey, Lentz & Barrett, page 57.

Financial Statement Analysis

The first step in preparing a business interruption claim is the analysis of the insured's financial statements both prior to and after the loss. Such analysis may be performed internally by the business entity or by forensic accountants retained by the carrier (or both if there is a dispute regarding the claim amount). The following details the types of financial analysis generally performed.

While an analysis of the entity's balance may be performed, much of the relevant information for a business interruption claim resides in the income statement. The income statement (often referred to as the Profit and Loss statement, or "P&L") is the statement of revenues, expenses, gains, and losses for the period ending with net income (or loss) for the period. The income statement formula of revenues less cost of sales less operating expenses +/- gains or losses equals net income/loss before income taxes. The cost of sales and operating expenses are comprised of both fixed and variable components. Or more simply,

Revenues
- Cost of Sales
- Operating Expenses
+/- Gains and Losses
Net Income/Loss

Components of the income statement are defined as follows:

- Revenues – monies entering the business in the form of sales during the period.
- Cost of sales – monies leaving the business because of sales during the period. This includes prices for raw materials, labor and overhead.
- Operating expenses – expenses incurred in carrying out the functions of the business, which typically include selling and general and administrative expenses. Management/sales payroll, rent, and utilities are examples.

The characteristics of the entity's expenses differ based on the type of business. Service type businesses, such as a landscape concern, do not produce a product and will therefore likely have a higher labor cost percentage as part of the cost of sales than a manufacturing concern. Alternatively, a manufacturing entity, such as a smart phone producer, will have significant raw materials within cost of sales.

An analysis of fixed and variable expenses is also performed in business interruption claims. This information is generally not readily apparent within the income statement and is typically performed through interviews with management and the accounting staff or through statistical analysis. The reason this analysis is important is that variable expenses may not occur during the business interruption and would therefore be excluded from the claim.

What Expenses Are Allowed and Not Allowed in Business Interruption Claims

Generally, continuing (fixed) and incremental (mitigation) expenses are allowed and included in business interruption claims. Continuing (fixed) expenses are all expenses which are incurred despite the interruption. These expenses are fixed in nature, meaning that they are not able to change in the short term based on management's decisions. Incremental (mitigation) expenses are necessary expenses incurred during the period of restoration that would not have been incurred had the event not occurred.

Non-continuing (variable) expenses are not normally included in a business interruption claim. Such expenses vary directly, sometimes proportionally, with business volume. These expenses would not ordinarily be incurred during the period of loss. There are certainly exceptions to this guideline. For instance, if an hourly employee (ordinarily considered a variable expense) was needed to keep portions of a factory operating, the relevant expenses may be considered fixed during the loss period. Examples of non-continuing (variable) expenses include the following:

- Sales commissions
- Cost of sales (or cost of goods sold)
- Bad debt expense
- Credit card transaction fees and sales discounts
- Payroll and related taxes (if employees were not paid during the loss period)

- Raw materials (if production did not continue during the loss period)
- Any expense, or portion thereof, that was not incurred because of the loss

BUSINESS INTERRUPTION CASE EXAMPLE

A convenience store that specialized in Twinkie sales (Twinkie, Inc.) submitted a claim to XYZ Insurance Company with the following details:

- On January 1, 2021, a fire began in the building after business hours and burned the store to the ground.
- The owners completely rebuilt the store and replaced all inventory, supplies, and furniture.
- The store was closed from the date of the fire until the rebuilding was complete on December 31, 2021.

What is the amount of loss?

Upon receipt of the assignment, the forensic accountant will generally research the business, the market, the competitors, market trends, and the general economy of the region where the business is located. Below are examples of documentation and information from the carrier and business that the forensic accountant may request:

- Copies of the insurance policy and related documents.[5]
- Copies of the interruption claims made to date.
- Information about the peril.
- Information about the business (including financial statements for monthly and annual periods).
- Federal tax returns.
- Fixed asset depreciation schedules.
- Organization charts and payroll records.
- Sales and purchase logs with monthly, weekly, or daily totals.
- Support for property repair costs.
- Expense details and supporting documentation.
- Analysis of saved costs.
- Bank statements.
- Operating agreements.
- Production or occupancy records.
- Projections and loan proposals.
- Personal tax returns and balance sheets.[6]
- Accounting source documents.
- Outside reports.
- Details about past unusual events.

Generally, when calculating a business interruption loss, the first step is to determine the amount of income the business would have made "but for" the loss. The second step is to calculate the actual loss. The actual business loss claim is calculated as the difference between the "but for" income and the actual income.

There are three methods to calculate a business interruption loss as follows:

1. Add the "but for" income to the fixed (continuing) expenses over the period of loss.
2. Subtract the variable (non-continuing) expenses from the lost revenues over the period of loss.
3. Subtract the actual income from the "but for" income over the period of loss.

In all three methods, the period of loss needs to be ascertained. In this example, the period of loss:

[5] The application of policy provisions is generally determined by and communicated to the forensic accountant by the insurance carrier.
[6] Personal tax returns are not generally requested for large commercial claims but may be useful in the assessment of potential fraud issues for smaller family-type business claims

- Begins on the date the business was first interrupted.
- Ends on the date of full restoration.

- Therefore, the period of loss is January 1, 2021, through December 31, 2021, or one year.

The next step is to examine historical trends leading up to the period of loss:

- Determine if the business has seasonal trends and/or other significant revenue fluctuations.

- In this example, the business has seasonal trends around the December holiday season.

The next step is to project sales growth for the period of loss:

- Analyze the historical growth trends to determine the company's compound annual growth rate.

- Examine the company for factors that may impact growth.

- Examine industry trends and forecasts.

After the completion of the above analysis, the next step is to review findings before proceeding with the financial statement analysis and loss calculations:

- Determine what additional documents are necessary.

- Determine what calculations must be performed.

- Assess whether (to date) there has been evidence or indications of fraud or misstatements.

- Assess other potential risk factors.

- Determine how to 'sanity check' the numbers for reasonableness and reliability.
  - » Were the financial results audited or reviewed by an outside accounting firm?

The following step is to analyze the historical financial statements and compute the historical compound annual growth rate (CAGR). Twinkie Inc.'s historical income statements for the years ended 2018, 2019, and 2020 are shown below:

	2018	2019	2020	% of Sales
Sales	$ 1,800	$ 2,000	$ 2,400	100.0%
COGS	375	417	500	20.8%
Wages	225	250	300	12.5%
Rent	36	65	67	
Advertising	90	93	95	
Insurance	75	77	82	
Net Income	$ 972	$1,098	$ 1,356	56.5%

The CAGR is generally calculated using the formula below:

CAGR = (FV/PV) ^ (1/n) - 1

Based on the above formula, Twinkie's CAGR from 2018 to 2020 is 15.47%.

The next step involves identifying the company's fixed (continuing) and variable (non-continuing) expenses. The goal is to determine each variable cost's historical percentage relative to sales and to establish the fixed costs during the loss period.

In this example, Twinkie's rent, advertising, and insurance costs appear to be fixed (continuing) costs. Therefore, the forensic accountant would only expect small variations in these costs for any projected increases in sales.

Rent	$ 69
Advertising	98
Insurance	82
Total Fixed (Continuing) Expenses	$ 249

For this analysis, increase projected sales for fiscal 2021 by the CAGR and calculate the cost of goods sold (COGS) and wages by the historical percentage of sales as follows:

	2018	2019	2020	% of Sales	2021 Projected
Sales	$ 1,800	$ 2,000	$ 2,400	100.0%	$ 2,771
COGS	375	417	500	20.8%	$ 577
Wages	225	250	300	12.5%	$ 346
Rent	36	65	67		$ 69
Advertising	90	93	95		$ 98
Insurance	75	77	82		$ 82
Net Income	$ 972	$1,098	$ 1,356	56.5%	$ 1,599

The final steps are to assess reasonableness and reliability of the calculated results. Below is a non-comprehensive list of questions that the forensic accountant and the insurance company should consider:

- Were the sales actually lost or just delayed?
    - » Were sales made from existing inventory and was damaged inventory paid at the selling price? If damaged goods were sold at the selling price, it could erode the business interruption claim.
    - » Were make-up sales made at a later date?
- Do the loss calculations match the overall sales trends?
    - » Any significant anomalies or unexplained variances?
- Was the seasonality of the business accounted for in the loss calculations?
- Were lost sales due entirely to the peril or were there other factors?
- Were potentially lost sales diverted to other business interests or facilities?
- Is the loss calculation reasonable?
- Were the assumptions contained within the loss calculations reasonable?
- Is the compound growth rate sustainable?
- Is the claimed loss reasonably likely to have been attained or just "probable"?
- How does the loss compare geographically with historical amounts?
- Have fraud risks been identified or has fraud been detected that may require further investigation? If so, consult with the insurance carrier to determine next steps.

In this example using the first method, the business interruption loss for Twinkie, Inc. is calculated as follows:

"But For" Income (Normal Profit)	$ 1,599
Plus: Fixed (Continuing) Expenses	249
Total Business Interruption Loss	$ 1,848

ANALYSIS OF POTENTIAL RED FLAGS IN BUSINESS INTERRUPTION CLAIMS

Fraud risk is listed last in the items above for the forensic accountant and the insurance company to consider, but such risks are certainly not the least important. In the Twinkie, Inc. example, there are several areas where a forensic accountant may uncover "red flags" of potential fraud, including:

- Adjustor or vendor discovery
- Claims history
- Commercial software products
- Tips and employee hotline numbers
- Financial statement analytical review
- Vendor analysis
- Benford's Law analysis[7]

Other specific analysis for Twinkie, Inc. may include the following:

- Investigate historical revenues
    - » Do the financial statements reconcile to the tax returns? Fraudsters are less likely to misstate tax returns due to the fear of IRS penalties and possible jail time.

[7] Benford's Law analysis is an analytical and statistical tool to predict expected digit frequencies in lists of numbers. Such analysis may be utilized to predict fraudulent activity in large number sets, such as financial statements, general ledgers, etc. A full analysis of Benford's Law is outside the scope of this discussion.

» Does the business have significant uncollected accounts receivables or are the receivables significantly past due? It is not uncommon for business owners to NEVER write-off accounts receivables which may significantly overstate actual revenues.

» Do the company's revenues reconcile to the cash ledgers? If the company is recording significantly more revenues than cash collections, there may be fictitious revenues.

- Investigate historical expenses

» Do the expense ratios reconcile to industry standards? Does the business contain multiple corporate entities? It is common to see business owners transfer expenses to other business entities to demonstrate profitability for lenders, etc.

» Is the business paying its expenses? If the company is having cash issues, it may accrue expenses on its financial statement but never pay them.

- Investigate operations

» Is the business open and operating? The forensic accountant will often conduct a site visit of the business to make sure it is operating and that the business assets and inventory remain in place.

If fraud is suspected (or detected) by the forensic accountant hired to conduct the business interruption claim, then the client/insurance carrier should determine whether further investigation is warranted. Since a fraud investigation is generally outside the scope of the forensic accountant retained for the original business interruption analysis, the insurance carrier may utilize their own Special Investigation Unit (SIU) team or retain outside forensic accountants to assess the potential fraud issues. In either case, the investigation is generally conducted in three phases:

- Phase I

» Analytical review
» Interview friendly witnesses
» Document examination

- Phase II

» Focus on issues developed in Phase I
» Interview neutral and adverse witnesses
» Examine additional documents

- Phase III

» Interview target(s) of investigation

The interview of the target of the investigation is generally conducted last so that the forensic accountant has all available information prior to the interview. This process makes it difficult for the target to either lie or conceal additional relevant facts.

According to the National Insurance Crime Bureau (NICB), other general indicators of insurance fraud in the inventory loss areas may include the following[8]:

- Inventory Loss/Property Insurance Fraud

» Insured is recently separated or divorced.
» Losses are incompatible with insured's occupation and/or income.
» Losses include large amounts of cash.

- Inventory Loss/Fire Related Fraud

» Pets were absent at time of fire.
» Losses include old or non-salable inventory or illegal chemicals and materials.
» Insured or insured's business is experiencing financial difficulties (bankruptcy or foreclosure).
» Investigation reveals no remains of non-combustible items of schedules property (coins, gun collections, or jewelry).
» Fire occurs at night after 11 P.M.
» Fire department reports cause is incendiary, suspicious, or unknown.

- Inventory Loss/Burglary and Theft Fraud

» Commercial losses occur at site where few or no security measures are in place.

[8] NICB "Indicators of Property Fraud"

- Inventory Loss/Claims Process
    - Insured's lost inventory differs significantly from police department's crime report.
    - Insured provides receipt(s) with no store logo (blank receipt).
    - Insured provides two different receipts with same handwriting or typefaces.
    - Insured provides single receipt with different handwriting or typefaces.

CONCLUSION

Business interruption claims can be complex and have areas where fraud exists. It may be customary for the insurance company to utilize forensic accountants with fraud experience to minimize the risks associated with such claims. When brought into such investigations, forensic accountants must know how to recognize the various red flags that indicate possible fraud. In these matters, they must also gain a unique understanding of how the insured's business works, and how it realizes income, expenses, profit, and loss on a historical basis. Armed with this knowledge and insight into the insured's financial circumstances, a forensic accountant can detect instances of fraud within a business interruption claim.

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