Can you measure employee fraud?

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In a column for the Denver Post, Gary Miller, SDR Ventures, states that "Fraud is more common than you may think." According to CBS News, a typical organisation can lose 5% of its annual revenue to employee fraud. When added to the Gross Domestic Product, the potential global fraud loss can be more than $2.9 trillion. Nearly one third of all employees commit some degree of employee theft. It is also estimated that a third of United States corporate bankruptcies are a direct result of employee theft.

The i-sight newsletter cites 41 Types of Fraud and How to Detect and Prevent Them. Forbes reports Your Employees Are Probably Stealing From You. Here Are Five Ways to Put an End to It. Some of the most common types of employee theft are:

- Forgery of company cheques for personal gain
- Theft of cash
- Using a "ghost payroll," which occurs when one or more employees create "phantom" employees, submit time cards for those employees, and then cash their pay cheques themselves
- Procurement Fraud (e.g. payment claims for goods or services that were not delivered)
- Travel and Subsistence Fraud
- Receipt Fraud
- "Sweethearting." This term refers to an unethical practice wherein an employee will grant a friend or other person a discount at the cash register or ring up fewer items than the person has actually bought.

More and more large organisations are conducting employee PULSE surveys. Employee engagement has become a new buzzword for employee commitment. Employee satisfaction surveys lead to more effective employee predictive analytics to determine the likelihood of life-time tenure of an employee. However, in the area of employee fraud, none of these techniques are designed to estimate the amount of employee fraud being committed.

The estimation of employee fraud or theft has generally been left to macro estimation. Surveying to determine socially unacceptable behavior (e.g. drug usage), or non-civic activity (e.g. voting in the last election), is most likely not going to be contrived from a survey, 'How many times have you stolen or committed fraud on your job in the past six months?' And even if respondents are able to answer a particular question, they may be unwilling to disclose, at least accurately, sensitive information because this may cause embarrassment or threaten their prestige or self-image. In the case of employee fraud or theft, to truthfully answer a similar question puts in jeopardy not only an employee's reputation, but his or her livelihood as well.

Research projects that investigate socially risky behaviour (for example, "Have you used illegal drugs in the past week?") or, conversely, socially expected behaviour (e.g., voting, religious attendance, charitable giving, etc.) are subject to what are referred to as *social desirability distortion.*

Social desirability distortion is the tendency of respondents to answer questions in a more socially desirable direction than they would if the survey were administered anonymously. A form of measurement error, it is often referred to as bias, socially desirable responding, or response distortion.

These sorts of questions, we advise, will almost certainly yield wildly inaccurate results if not administered correctly.

Over the past few years, we have successfully employed a questionnaire technique called the *Item Count method* to reduce the effects of social desirability distortion. As used, the respondent reports only the number of items on the list in which he/she has engaged, not which behaviours. If the average number of non-stigmatising behaviours is known for the population, one can estimate the rate of the sensitive behaviour for the population by the difference between the average number of behaviours reported for the population including and excluding the stigmatised behaviour.

The *Item Count Method* can also be employed to detect an estimated amount of employee fraud or theft within an organisation.

Item Count Method

The item count method allows survey respondents to remain anonymous when reporting a sensitive behaviour. This is accomplished by including the sensitive behaviour of interest in a list of other relatively non-stigmatising behaviours. It is also used to estimate socially positive behaviours as well, such as voting.

Employee Fraud Example

In the example below, the researcher is attempting to identify the percentage of employees who have committed employee fraud or theft within the past six months.

One of the groups received a set of five items. The participants were told that this questionnaire was designed to encourage honest responding, and were asked not to respond directly to whether any particular item is true; rather, they were asked to list how many of the five items were true.

How many of the following slightly dishonest behaviors have you done in the past six months?

Behaviors - Group 1
Took extra deductions from your tax forms
Leeched off of unsecured WiFi network
Parked in a handicapped spot
Grocery store snacking before checkout
Broke the speed limit

While indicating how many items were true, they never directly endorse any particular item. Someone who responded 3, for instance, was indicating that three of the five items were true for him or her.

Another group of respondents is given the same list, plus one additional behaviour—the one we are interested in measuring.

How many of the following slightly dishonest behaviours have you done in the past six months?

Behaviors - Group 2
Took extra deductions from your tax forms
Leeched off of unsecured WiFi network
Parked in a handicapped spot
Grocery store snacking before checkout
Broke the speed limit
Stolen something from work or misused your company's funds or expense account

Subtracting the average number of behaviours reported by the first group from the average number of behaviours reported by the second group estimates the *proportion* of people given the longer list who said they performed the requested behaviour.

There are a few guidelines when designing an item-count method experiment.

- The behavior used on the item-count method list should be such that few respondents have performed all or none of them. Reporting one activity negates the anonymity.

- Behaviours should be within the same 'category'. For example, if one is investigating employee fraud, then other slightly illegal behaviours should be included on the list, such as illegal parking or slight tax cheating

- The wording of the employee fraud portion in this example is ambiguous. In fact, there are many types of employee fraud or theft of various severity. This example examines general employee fraud. If the goal of the study is to determine a more specific behaviour, the accompanying behaviours should reflect that.

- Larger samples enhance estimate stability and accuracy.

Below are preliminary results, by gender.

	Total	Men	Women
Group 1	2.35	2.67	2.03
Group 2	2.72	3.08	2.36
Estimated Proportion of Employee Fraud or Theft (Group 2 - Group 1)	0.37	0.41	0.33

The base rate estimate for the behaviour of interest is found by subtracting the two means: mean (Group 2) - mean (Group 1). In this example, in total Group 1 conducted 2.35 behaviours; Group 2 conducted 2.72 behaviours. Thus, the base rate estimate in this population for employee fraud or theft is 2.72-2.35=0.37—roughly 37% of our sample has stolen something from their employer or misused company funds.

Broken out by gender, men have slightly higher means of slightly illegal behaviour—not surprising, given that, for example, parking in a handicapped spot or snacking while grocery shopping is viewed as slightly less naughty by men than by women. Men also had a slightly higher employee theft estimation.

Closing Thoughts

Reducing measurement error is an ongoing challenge for talent managers. Employees are generally unwilling to respond, or respond truthfully, to questions they consider inappropriate for the given context, they do not see as serving a legitimate purpose, or are sensitive, embarrassing, or threatening to their own-self image. Utilising the item-count measure can be an effective way of reducing misreporting caused by social desirability pressures associated with interviewer-administration.

ABOUT THE AUTHOR

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