Comparative Study on Approaches to Counter Fraud and Corruption

The United Nations Sabbatical Study at John F. Kennedy School of Government Harvard University

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Nozomi Yamakawa
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Disclaimer: The views expressed in this report are solely those of the author and do not represent the official positions of the United Nations.
1. Abstract

For decades, there have been continuous efforts by the United Nations to combat fraud and corruption in an attempt to become a more transparent and accountable organization. Despite the anti-fraud and corruption policies that have been updated multiple times and other initiatives such as awareness training and various working groups, the organization has continued to face challenges in managing fraud and corruption risks and outcomes. Given the increased expectation by the Member States and other stakeholders on the accountability of the United Nations for its operations, it has become pressingly important for the organization to have an effective mechanism to counter fraud and corruption.

According to the Association of Certified Fraud Examiners (ACFE), the financial losses due to fraud and corruption in the private sector were estimated at 5 per cent of the annual revenue. In contrast, the review by the Joint Inspection Unit (JIU) in 2015 indicated that the financial loss due to fraud is extremely low in the United Nations, estimated at approximately 0.03 per cent. Considering the broad range of operations across the world, including extensive procurement activities, handling of rations, fuel, medical and other supplies, the risk of financial loss due to negligence, fraud and corruption in the United Nation is inherently high and thus, the estimated loss of 0.03 per cent is unrealistic. The low level of financial loss due to fraud and corruption does not infer that the organization suffers a significantly small number of fraudulent acts as compared with private organizations. It rather suggests that in many instances, the staff choose not to report wrongdoing of others. At this point, there are no reliable figures to show how much public money has been lost to fraud and corruption.

The ultimate goal of the present study is to promote the good governance and culture of integrity and honesty in the United Nations and assist the Organization in establishing a more dependable system for internal reporting. The historical studies conducted in both public and private organizations have shown that internal reporting is the most effective tool to detect fraud and corruption, and thus the study focuses on detection through internal reporting.

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4. Internal reporting (hotline), internal audit and management review usually detect more than a half of all fraudulent acts committed in the public and private organizations.
There are two main approaches to prevent fraudulent acts from happening or to deter them. One is a “command and control” approach including policies, rules, and regulations. This type often gains its effectiveness by linking to the financial and nonfinancial incentives (i.e. monetary reward, recognitions, etc.) or the potential consequences of non-compliance (i.e. disciplinary measures such as dismissal). The other type of approach takes “soft” measures such as awareness raising and appeals through training programs and information sharing. The study found that “soft” measures are as effective as a “command and control” approach when combined with the behaviourally informed interventions. The “command and control” approach is often more expensive for the organization to implement as compared with the “soft” approach.

The report introduces such “soft” approaches developed by behavioural economics theory. The historical studies have proven that behaviourally informed policy can provide creative solutions to difficult challenges, often at low cost. The World Bank is a pioneer in applying behavioural economics in various programmes. The Mind, Behaviour, and Development Unit (eMBeD) is the World Bank’s behavioural sciences team who works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviourally informed interventions. Behaviourally informed interventions assume that people don’t always act rationally, miscalculate future themselves and their preference are reference dependant, while traditional economics theory does not take into consideration such human natures. The report quantified the cost of internal reporting based on the traditional economic theory and analysed the incentive system by using the examples. It further explains the limitations of the incentive system from the standpoints of both economics and behavioural economics.

To promote good governance and ethical culture, it is important for organizations to detect issues when they arise and to mitigate against potential consequences as they occur. Despite organizational efforts to counter fraud and corruption, organizations may fall short in alerting their employees of the importance of reporting misconduct and making them comfortable when doing so. While internal reporting is one of the most effective means for organizations to detect fraudulent acts, it is fraught with the risk of retaliation or other unfavourable consequences. There is much uncertainty in regard to the consequences to both the implicated persons and the whistle-blowers, which might pose a hurdle to effective internal reporting. The study identified such barriers that might prevent employees from undertaking a prosocial act.

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5 Command and Control (CAC) Regulation can be defined as “the direct regulation of an industry or activity by legislation that states what is permitted and what is illegal.” McManus, P. (2009) Environmental Regulation. Australia: Elsevier Ltd.

6 The field of behavioral economics blends insights of psychology and economics, and provides some valuable insights that individuals are not behaving in their own best interests. Behavioral economics provides a framework to understand when and how people make errors.
With any measures to counter fraud and corruption, it is a challenge to evaluate their quantitative and qualitative impact on the organization’s transparency and accountability. For example, when an intervention successfully increases internal reporting, it would also likely lead to a higher percentage of identified losses due to fraud and corruption than the current 0.03 per cent. The organization as well as the Member States will first need to welcome the bad news (i.e. a higher percentage of identified losses) as a sign of the improved transparency through active internal reporting. This seemingly painful task is part of the process to become a more transparent and accountable organization and ultimately to reduce fraud and corruption.

2. Introduction

2.1 Background

The United Nations is called to operate in uniquely high-risk environments that could potentially expose its activities to significant risks of fraud and corruption. Since it is the public money that the United Nations is operating on, the Member States have rightfully expected the staff and management of the United Nations to adhere to a high level of ethical standards and zero tolerance to fraud and corruption. The report of the Board of Auditor (BoA) highlighted that the level of reported fraud in the United Nations is unusually low given the scale and complexity of global United Nations activity and the high-risk environments in which that activity takes place. In recent years, BoA has consistently highlighted weaknesses in the way the Administration manages the risks arising from fraud and corruption and made recommendations including: (i) developing an integrated strategic approach to tackling fraud, drawing on the many practical examples of good practice being adopted across the world and adapting these to the Organization’s circumstances; (ii) Assessing and understanding the type and scale of fraud threats the United Nations is exposed to; (iii) taking concerted and urgent action to strengthen its counter-fraud policies and procedures. Despite some progress by the United Nations Administration in implementing the recommendations, BoA stated that the administration continues to make insufficient progress in response to BoA’s previous concerns and recommendations on strengthening measures to counter fraud and stressed the need to perform a comprehensive fraud risk assessment, design a central intake mechanism for fraud reporting, or develop a framework for the systematic legal pursuit of all proven fraud.

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7 Zero-tolerance policies forbid persons in positions of authority from exercising discretion or changing punishments to fit the circumstances subjectively; they are required to impose a pre-determined punishment regardless of individual culpability, extenuating circumstances, or history. This pre-determined punishment, whether mild or severe, is always meted out.

8 Financial report and audited financial statements for the year ended 31 December 2013 (A/69/5), 31 December 2014 (A/70/5) and 31 December 2015 (A/71/5)
The research conducted on private organizations\(^9\) indicated that the losses by fraudulent acts were estimated at 5 per cent of the annual revenue. An increasing number of private companies are concerned with internal and external fraudulent acts and try to establish effective mechanisms to prevent and detect such acts. In the case of the United Nations system, the report from JIU indicated that the losses were extremely low, estimated at 0.03 per cent. interpreted the figure that underreporting and/or non-detection in the United Nations system could be “significant and endemic.”

2.2 Scope and methodology
The study was undertaken from 28 August to 10 December 2017 at John F. Kennedy School of Government at Harvard University. The primary focus of the study was to identify the effective means to promote the transparency and accountability of the United Nations. Particular attention was given to the internal reporting systems since the Organization faces an issue of significant underreporting. The historical study on both public and private organizations has shown that internal reporting is the most effective tool to detect fraud and corruption, as indicated in Chart 2 and Annex 6.3 of this report. The study analysed the incentives policy for internal reporting from the viewpoint of a standard economics model as well as a behavioural economics model. The study included the review of the policies, rules, procedures, guidelines, and anti-fraud and corruption programmes of the United Nations funds and programmes and specialized agencies; however, the conclusions and recommendations are written solely for the United Nations. The methodology included literature reviews, interviews, surveys, data analysis, and hypothetical reasoning based on the existing theories. The preliminary research was based on the review of available literature and articles relating to fraud and corruption in the public and private sectors, and the United Nations anti-fraud and corruption policies, procedures, and programmes. During the fieldwork from 2 October to 12 November 2017, 14 interviews were scheduled, 11 of which were conducted in New York and Boston and 3 were cancelled due to various reasons. In addition to in-person or telephonic interviews, 22 individuals responded to the online survey\(^10\).

2.3 Limitation
While the historical studies and literature provided enough evidence to support the effectiveness of behaviourally informed interventions in many domains, the number of studies conducted in the domain of internal reporting is limited. More studies are needed to assess the effectiveness of internal reporting. Moreover, the individuals who were interviewed and the survey respondents predominantly

\(^9\) Association of Certified Fraud Examiners – 2014 Global Fraud Study/Report to the Nations of Occupational Fraud and Abuse based on more than 1,400 Certified Fraud Examiners.

\(^10\) The survey application, “SurveyLegend” and “PollEverywhere” were used to solicit the response from Human Resources Managers, Operations Managers, Internal Auditors, Ethics Officers, Legal Officers and Ombudsmen as well as other employees who were introduced through HR and agreed to participate in the survey. Respondents were employees in a private or a public organization located in the North America.
work in organizations in North America and thus, their conditions and views may not represent those of the different regions in the world.

3. Fraudulent acts and their detection

3.1 Fraud and corruption

People often use the words fraud and corruption in combination to describe certain adverse incidences or sometimes use them interchangeably. The definitions of fraud vary from organization to organization, both in the private and public sectors. The United Nations uses the term “fraudulent acts” to encompass both fraud and corruption. Although there was no officially established definition, anti-fraud and anti-corruption framework of the United Nations Secretariat\textsuperscript{11} indicated that:

“Fraudulent acts is intended to include both fraud, which encompasses any act or omission whereby an individual or entity knowingly misrepresents or conceals a material fact in order to obtain an undue benefit or advantage for himself, herself, itself, or a third party, or to cause another to act to his or her detriment; and corruption, which encompasses any act or omission that misuses official authority or that seeks to influence the misuse of official authority in order to obtain an undue benefit for oneself or a third party.”

According to ACFE, fraud is “any intentional act or omission designed to deceive others, resulting in the victim suffering a loss and/or the perpetrator achieving a gain.” Corruption is a broad term, and it can refer to misconduct perpetrated by individuals to gain benefits at the personal level or the institutional level (i.e. country, industry, organization.) ACFE defines corruption as “wrongful use of influence to produce a benefit for the actor or another person, country to the duty or the right of others.” Corruption schemes include bribery and kickbacks, illegal gratuities, economic extortion, and undisclosed conflicts of interest. Chart 1 illustrates the structure of fraudulent acts while Annex 6.2 provides the comprehensive classification system of occupational fraud and corruption.

Chart 1
Classification of fraudulent acts\textsuperscript{12}

\begin{itemize}
\item Financial statements fraud
  \begin{itemize}
  \item Deliberate misrepresentations
  \item Deliberate misstatements
  \item Omissions
  \end{itemize}
\item Asset misappropriation
  \begin{itemize}
  \item Theft of cash on hand/receipt
  \item Fraudulent disbursements
  \item Inventory theft
  \end{itemize}
\item Corruption
  \begin{itemize}
  \item Bribery
  \item Conflict of interest
  \item Illegal Gratuities
  \item Economic extortion
  \end{itemize}
\end{itemize}

\textsuperscript{11} ST/IC 2016/25, Annex, para. 3
\textsuperscript{12} Association of Certified Fraud Examiners, Report of Nation on Occupational Fraud and Abuse
The Foreign Corrupt Practices Act (FCPA)\textsuperscript{13} and the United Kingdom Bribery Act 2010 are at the centre of national anti-corruption efforts. There has been a notable increase in anti-corruption laws, regulations, and enforcement activities in many regions as listed in Annex 6.2. The global trends in anti-corruption enforcement indicate an increase in the number of enforcement actions against corruption cases and increases in the penalties paid by organizations to settle enforcement actions.

To respond to corruption, the United Nations adopted a multilateral treaty called the United Nations Convention Against Corruption (UNCAC) based on the negotiation with the Member States of the United Nations. UNCAC is the only legally binding international anti-corruption agreement. It requires state parties to the treaty to implement several anti-corruption measures that focus on five main areas: prevention, law enforcement, international cooperation, asset recovery and technical assistance, and information exchange\textsuperscript{14}.

### 3.2 Methods of detection

In 2015-2016, ACFE conducted research on 2,127 occupational fraud cases to identify the methods of detection. Chart 2 shows the overall frequency of how schemes were initially detected in the organizations with and without hotlines. While whistle-blowing (i.e. internal reporting) was the most common detection method regardless of whether a hotline was in place, schemes were detected by whistle-blowing in 47.3 per cent of cases at organizations that had hotlines, but in only 28.2 per cent of cases at organizations without them. Internal audit edged out management review as the second-most common detection method. Annex 6.3 provides further details on detection methods by region (organizations with and without hotlines combined). One way to determine the effectiveness of reporting hotlines is to compare the percentage of cases that were initially detected via tips in organizations with and without hotlines.

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When and where implemented, an internal whistle-blower hotline is a critical component of a company’s anti-fraud program, as tips are consistently the most common method of detecting fraud. Consequently, it is essential that organizations consider implementing effective whistle-blower hotlines. As previously mentioned\(^\text{15}\), organizations that had reporting hotlines were much more likely to detect fraud through tips than organizations without hotlines (47.3 per cent compared to 28.2 per cent, respectively). The whistle-blowing hotline facilitates the reporting of possible illegal, unethical, or improper conduct when the normal channels of communication have proven difficult or ineffective. The hotline is an alternative route apart from the formal reporting line to escalate the information on misconduct or fraud. The hotline can be a telephone number, email, web-based online form, fax, letter or in-person. Although the most commonly used method was telephone (39.5 per cent), tips submitted via email (34.1 per cent) and web-based online forms (23.5 per cent) combined to make reporting more common through the Internet than by telephone.

In the United Nations, the Office of Internal Oversight Services provides the hotline on its website where employees can confidentially report waste, fraud, mismanagement or other wrongdoing when they encounter it. Similar to other organizations, the internal reporting has been the principal method of detection of wrongdoing in the United Nations. The statistics were not available as to what percentage of employees actually knows about the hotline and how comfortable they are reporting wrongdoing.

\(^\text{15}\) Association of Certified Fraud Examiners – 2014 Global Fraud Study/Report to the Nations of Occupational Fraud and Abuse
3.3 Implementation in the private corporations

The study reviewed the policy and implementation of whistle-blower hotlines for seven privately owned corporations. The cases below demonstrates different approaches taken by the corporations for the whistle-blower hotlines.

Case 1

| Company A |
| Industry: Pharmaceutical |
| Size: Large domestic corporation |
| Number of employees: More than 10,000 |
| Annual revenue: About USD 5.8 billion |

The company established the hotline called “Compliance Counter.” The purposes of Compliance Counter are to consult whether: (i) one’s action constitutes a violation or (ii) an action by other individuals constitute a violation of law, regulation or corporate policies. The potential users of Compliance Counter include anyone who holds an employment contract with the company in any form, including the board members and consultants. Compliance Counter is operated by the Ethics Office in coordination with the Legal Office and the external legal counsel and has so far received cases in connection with cartels, price rigging, concealment of recalled products, bribery, illegal disposal, and sexual and power harassment. Compliance Counter guarantees the anonymity of whistle-blowers as far as the cases handled within the company, but anonymity does not apply when the case is brought to law enforcement or the court. This is an example of the most common type of the hotline arrangement, and the company had more than 600 accesses to the hotline in 2015.

Case 2

| Company B |
| Industry: Automotive |
| Size: Large multi-national corporation |
| Number of employees: More than 30,000 |
| Annual revenue: About USD 22.6 billion |

Company B established “the employee consultation office” in 2000 led by a board member who was responsible for corporate ethics and the external experts such as lawyers and counsellors. The office has received various complaints and tips and carried out internal reviews/investigations since 2000. It analyses reported cases, and based on its internal review/investigation, suggests a certain course of actions to respective departments/offices to resolve the issues. For reporting of misconduct that may be illegal, the office ensures that the result of internal review/investigation is shared and consulted

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16 Interviewed was conducted on October 2 and 3 2017 based on the information obtained from “The Three Approaches to Promote Internal Reporting,” Policy Forum 2014.

17 Interview was conducted on October 9 and 10 2017 based on the information obtained from “The Three Approaches to Promote Internal Reporting,” Policy Forum 2014.
with the highest level of the management. A few years after the company introduced the hotline, the major issue related to their product defects came to light; however, the tips did not come through the hotline, but through an informal line of reporting. It was later revealed that many of the company employees perceived the employee consultation office unreliable in terms of anonymity of whistle-blowers and ineffective in terms of its analysis and outcome. This is an example of a hotline that did not function as intended.

Case 3

<table>
<thead>
<tr>
<th>Company C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry: Technology</td>
</tr>
<tr>
<td>Size: Large global corporation</td>
</tr>
<tr>
<td>Number of employees: More than 350,000</td>
</tr>
<tr>
<td>Annual revenue: About USD 81.7 billion</td>
</tr>
</tbody>
</table>

The company adopted two systems called “speak-up” and “open-door.” In “speak-up”, one designated personnel called the “Coordinator” is responsible for reviewing all cases submitted by employees or external parties and ensuring the anonymity of the information source by examining the documents before submitting them to the senior management. In “open-door”, employees are allowed to skip the chain of command to report misconduct to the senior management. In this system, for example, an employee in China can report an incident not only to the president of the Chinese operations, but also directly to the highest level of management in the United States, where their headquarters are located. The company also adopted Business Conduct Guidelines (BCG) that prohibits managers from unfairly treating employees for using the “open-door” system. Those who violate BCG are subject to disciplinary actions and penalties. Compliance is considered part of the overall management system and the company treats any issues relating to corporate ethics as management issues. The company also ensured that its subsidiaries and group companies share the same policies and standards and implement them in the same manner as the parent corporation does. This is an example in line with the best practice of the industry, demonstrating the culture at the top.

Interview was conducted on October 16, 2017 based on the information obtained from “The Three Approaches to Promote Internal Reporting,” Policy Forum 2014.
4. Approaches to combat fraud and corruptions

4.1 Moral incentives and coercive incentives

Moral incentives are said to exist where a particular choice is widely regarded as the right thing to do, or as particularly admirable, or where the failure to act in a certain way is condemned as indecent. A person acting on a moral incentive can expect a sense of self-esteem and approval or even admiration from his or her community; a person acting against a moral incentive can expect a sense of guilt and condemnation or even ostracism from the community. Organizations may stimulate such moral incentives of employees in countering fraud and corruption. It can be done by raising fraud awareness and educating staff and other stakeholders about the mechanisms for the reporting of potential fraud and corruption. Moral incentives encourage employees to fight against fraud and corruption together with the organizations, fostering an ethical and anti-fraud culture. This can also convey the message that the organization has a zero-tolerance policy for those who engage in fraud and corruption, which provides coercive incentives to employees. Coercive incentives can deter potential perpetrators from committing fraud by warning them about being caught and the possible consequences.

4.2 Integrity awareness training and leadership dialogue

In the United Nations, all the employees must take a mandatory e-learning programme titled “Integrity Awareness”. This ethics training module is intended to be a basic prevention module on topics such as identifying, detecting, and speaking out against fraud and corruption. It also deals with any ensuing retaliation concerns, as well as reinforcing compliance by all United Nations staff with staff regulations, rules, and standards of conduct. Despite the intended purpose of anti-fraud training, according to the JIU fraud survey of the United Nations system, more than 77 per cent of staff surveyed had not had any fraud-related training in their work environment in recent years. This indicates that though categorised as “mandatory”, the training is not enforced. Since there is no direct linkage between non-compliance with the training requirement and performance of employees, grade increments, or contract renewal, the organizational initiative of raising awareness through mandatory training has its limitation. For example, many managers give their staff the passing score in ePAS without confirming their completion of the mandatory training courses.

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20 Coercive incentives are said to exist where a person can expect that the failure to act in a particular way will result in physical force being used against them by others in the community. For example, by inflicting pain in punishment, or by imprisonment, or by confiscating or destroying their possessions. In this case, termination, recovery of loss from their pension benefits, prosecutions etc.
21 JIU/REP/2016/4, para. 70.
22 The Performance Management and Development System introduced by the United Nations for the purpose of improving the delivery of programmes by optimizing performance at all levels. (ST/AI/2010/5)
Leadership dialogue has been another avenue to remind the employees of their responsibility as international civil servants. In order to create a positive work environment by effective communication, the leadership dialogue programme was launched in 2013 with conversations about the oath of office and what it means to be an international civil servant. The programme aims at promoting an ethical culture by raising awareness and effective communication. The Ethics Office leads this programme and requests that all managers in the Secretariat host one-hour sessions with their direct reports on the specific subject. The impact of the programme could not be assessed during the study due to the lack of statistics.

4.3 Roles of the United Nations staff and management
The promotion and maintenance of a culture of integrity and honesty is a basic requirement for combating fraud and corruption. As the policy states, it is the primary responsibility of staff, including management, and other United Nations Secretariat personnel, and is a responsibility that the Secretariat also applies to its relationship with third parties. While each individual comprising the organization has this responsibility, there is no doubt that the senior management plays a central role in setting the tone for the organization at the top. They are responsible for promoting fraud awareness and conveying the strong message that the organization takes a zero-tolerance approach to fraud and corruption involving staff members, other personnel, and third parties in relation to their work with the Secretariat. The Commitment at the top to the fight against fraud and corruption flows down to the people at all levels. It is, therefore, vital for the senior management to share the common understanding of fraud and corruption as well as measures to counter them and effectively communicate it to their staff.

4.4. Approach based on the Behavioural Economics theory
The historical studies presented that an understanding of psychology and other social science disciplines can “inform the effectiveness of the economic tools traditionally deployed in carrying out the functions of government, which include remediying market failures, redistributing income, and collecting tax revenue.” An understanding of psychology can also lead to the development of different policy tools that better motivate desired behaviour change or that are more cost-effective than traditional policy tools. This section of the report first discusses the potential barriers preventing employees from undertaking prosocial tasks such as completing the Integrity Awareness training and reporting wrongdoing, and second, introduces the concepts and related interventions to tackle those barriers.

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23 Subject for 2016 was “Fraud awareness and prevention: How to I fit in?”
4.4.1 Barriers of internal reporting

To improve the transparency and accountability, the United Nation is currently (i) educating employees through the Integrity Awareness training as well as Leadership Dialogue and (ii) encouraging employees to report wrongdoing when they encounter it. The following are the possible barriers that might be preventing employees from acting in accordance with the organization’s intention.

- **Cognitive overload:** Cognitive load refers to the total amount of mental effort being used in the working memory\(^{25}\). The policies relating to internal reporting and whistle-blower protection may be ambiguous and spread in multiple policy and procedural documents. The contents of Integrity Awareness training may be complex, lengthy, or not addressing the needs of the practical information.

- **Status quo bias:** Status quo bias is an emotional bias that shows a preference for the current state of affairs. Status quo bias interacts with other non-rational cognitive processes such as loss aversion, existence bias, endowment effect, longevity, mere exposure, and regret avoidance. Employees are reluctant to change the current condition, especially when it involves much uncertainty whether their actions will bring positive changes or lead to a negative consequence. They may want to avoid changes by not acting.

- **Availability bias (fear of retribution):** Availability is a heuristic whereby people make judgments about the likelihood of an event based on how easily an example, instance, or case comes to mind\(^{26}\). The media reports the sensational cases of retaliations. This may lead to employees overestimating the probability of retaliation. Employees may think that internal reporting is too much risk to take.

- **Loss aversion (fear of retribution):** The prospect theory\(^{27}\) provides that people are risk seeking in the loss domain and risk averse in the gain domain. Employees who are at a risk of losing their job due to wrongdoing of others may be motivated to report the case; however, most employees who are in a secure position are likely to be risk averse. This also explains why the incentive policy (i.e., gain domain) is less effective than penalty policy (i.e., loss domain).

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\(^{25}\) Cognitive load theory was developed out of the study of problem solving by John Sweller in the late 1980s. Sweller argued that instructional design can be used to reduce cognitive load in learners.


\(^{27}\) The prospect theory was proposed by psychologists Daniel Kahneman and Amos Tversky in 1979, and later in 2002 Kahneman was awarded the Nobel Prize in economics for it.
• Hot-cold empathy gap and prospective memory failure: Hot-cold empathy gap is a cognitive bias in which people underestimate the influences of visceral drives on their own attitudes, preferences, and behaviours. The most important aspect of this idea is that human understanding is "state-dependent". Prospective memory is a form of memory that involves remembering to perform a planned action or recall a planned intention at some future point in time. Employees might want to undertake prosocial tasks such as attending the training or reporting a case at one point in time but they no longer feel the same at a later point in time. They may also forget and fail to follow through the plan as time passes.

• Affective response: Affective response can be defined as the general psychological state of an individual, including but not limited to emotions and mood, within a given situation. When information is unpleasant to deal with, people often fail to attend to it because attention imposes a welfare loss. Employees may have negative affective responses to “internal reporting” or “investigation,” and thus avoid involving any actions relating to it.

• Uncertainty: Employees might not know what constitutes misconduct and warrants internal reporting and an investigation, as well as what would happen to the implicated person and whistle-blower after the case is reported.

4.4.2 Behaviourally informed intervention I

The following are the concepts and interventions to achieve two goals: (i) educate employees through Integrity Awareness training (Intervention 1) and (ii) encourage employees to report wrongdoing when they encounter it (Intervention 2).

Intervention 1

Completion of the Integrity Awareness training is hindered by complexity, prospective memory failure, and hot–cold empathy gap. It can be improved by the following.

• Simplification: The contents of the training can be further simplified to fit in the module, focusing on the practical matters such as what warrants internal reporting, and how to report and what to expect after reporting. Reducing the amount of less important information would increase the salience\textsuperscript{28} of more important information.

\textsuperscript{28}Saliency bias (also known as perceptual salience) is the tendency to use available traits to make a judgment about a person or a situation. Salience is how noticeable or observable something is while a bias is an altered way of thinking or perceiving. Taylor, S. E., & Fiske, S. T. (1978). \textit{Salience, attention, and attribution}. 

15
• Planning aid (default\textsuperscript{29} and remainder): Default bias suggests that people are much more likely to stick with the status quo than what they might expect given the benefits of switching to another option. The Office of Human Resources Management (OHRM) can send an email invitation indicating the date and time of the mandatory training. Employees are asked to click either “Accept” or “Decline” to respond to the invitation. When individuals accept the invitation, it automatically blocks the time in their calendar. As the default setting of the email invitation, it sends a reminder one day and one hour before the scheduled training. When individuals decline the first invitation, OHRM sends a second email with a date and three time options. Employees are asked to click one of the options, which is linked to their calendar and reminder setting.

• Social norm: Social norms are a widely used concept for explaining human behaviour. Social desirability bias is a type of response bias that is the tendency of survey respondents to answer questions in a manner that will be viewed favourably by others\textsuperscript{30}. When employees fail to take an action after the second email, OHRM sends a third and final email to them and their department head, indicating that they are one of the few people in their department who have not completed the training and should act immediately. The heads of departments are also informed of the completion rate of their respective department as well as the ranking.

4.4.3 Behaviourally informed intervention II

Active internal reporting is hindered by loss aversion, status quo bias, social norm, hot–cold empathy gap, availability bias, and affective response, and can be improved by the following.

• Increase salience: The study suggests that increasing salience of a choice, a data point or piece of information will increase its importance in the decision making. Instead of waiting for employees to act through the hotline, the administration can send the online survey on a quarterly basis to remind employees of their fiduciary duty and solicit the information.

• Self-identification: Self-identification is how one sees oneself with someone or something else. Various studies indicated that people tend to act in line with their self-identification\textsuperscript{31}. In the beginning of the online survey, the employees can be given simple multiple-choice questions relating to the three United Nations core values of professionalism, integrity, and respect for diversity. The purpose of the questions is to remind the employees of their identity. For


\textsuperscript{30} There is a risk of over-reporting "good behavior" or under-reporting "bad", or undesirable behavior.

example, the question may ask, “Integrity represents the characteristics of the following (select all that apply): (a) Act to maximize personal gain; (b) Take prompt action in cases of unprofessional or unethical behaviour; (c) Always follow what your supervisor says; (d) Resist undue political pressure in decision-making.” Following the questions, employees are asked how they predict they would react to unethical or unprofessional behaviors of others. For example, it may ask, “How do you think you would act when you find your supervisor receiving a gift from a local vendor?: (a) I would report it immediately; (b) I may report it after analyzing the situation; (c) I might not act on such events; and (d) I would not report.” This is based on the theory that a prediction of an act actually leads people to act accordingly.  

- Increasing availability of positive outcomes: By using the organization web portal, the United Nations can regularly report cases for which internal reporting led to successful outcomes (financially and nonfinancially) regardless of the significance of cases or the events that demonstrates employees’ integrity and professionalism. This will increase the ease with which positive instances come to employees’ mind. This can be implemented only after the confidentiality requirement is taken into consideration.

- Framing and hard incentive (penalty): The prospect theory assumes that losses and gains are valued differently, and losses are likely twice as impactful as gains. People are risk-seeking in the loss domain while being risk-averse in the gain domain. Instead of framing internal reporting as something that is voluntary and rewarded/praised, it can be framed as the obligation of employees. It sends a clear message that nonreporting is a failure to fulfill the fiduciary duty, and such failure might result in disciplinary actions.

- Social norm and non-financial incentive (recognition): Knowing what their peers or office are doing motivates individuals to act accordingly. For example, it may read, “An employee in your duty station reported an incident in 2011 which resulted in a $156,000 recovery of the public money in the procurement contract. This can be implemented only after the confidentiality requirement is taken into consideration.

4.4.4 Potential issues of the interventions

The following are the potential issues relating to the design of interventions. Especially, careful consideration should be made in terms of the confidentiality requirement.

- Informing employees that they are one of 18 (for example) who have not completed the training with copying their Department Head might undermine their dignity. If the number who have

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not completed the training is unexpectedly large, it may backfire\textsuperscript{33}. Needless to say, falsely reporting the number to promote training completion is unethical\textsuperscript{34}.

- Asking seemingly obvious questions regarding the United Nations core values may also undermine the dignity of employees. The same questions cannot be repeated every quarter.
- Employees may perceive this exercise as manipulative.
- Providing the ranking of training completion might backfire when there are many other departments in the lower ranks. Moreover, it may be considered “shaming,” and undermine dignity of people.
- Indicating and imposing the penalties for noncompliance may undermine perceived or actual autonomy\textsuperscript{35} of employees.
- The information gathered through the survey may include false information.
- The interventions can be implemented with small cost; however, the ultimate goal is not just collecting the information. It requires substantial resources to actually filter the collected information and investigate the cases.
- While sharing successful outcomes with employees may lower their psychological hurdle of internal reporting, some cases are strictly confidential and there is much limitation as to what can be shared.

\textbf{4.4.5 Cost considerations}

The cost of these interventions is small, comprising the human hours of preparing emails and the subscription fees for online survey services. However, the increased internal reporting would inevitably lead to additional human work and cost (i.e., cost of analysis and investigation).

\textbf{4.4.6 Evaluation of impact}

For Intervention 1, the United Nations administration should analyze the increase in the completion rate after the first, second, and third emails. The administration can also solicit comments from the employees at the end of the training on how the training can be improved in terms of content, length, and delivery.

For Intervention 2, the administration can initially measure the impact by the number of responses to the survey and the percentage of people who shared information in the free-response box. However, it takes time to be able to statistically analyse the overall impact on investigations. Moreover, it is a big challenge to evaluate their quantitative and qualitative impact on the organization’s transparency and accountability.


\textsuperscript{34} There was a case where the government reported inaccurate numbers to promote organ donation.

\textsuperscript{35} According to Cass Sunstein, the author of “The Ethics of Nudging,” unethical policies undermine (i) autonomy, (ii) dignity and (iii) welfare of agents.
4.5 Approach based on the traditional Economic theory

In contrast to the approach that promotes a good culture in organizations through awareness training, surveys and open discussions, there is a reward-based approach in monetary terms that is driven by traditional economic theory\(^{36}\). While the former approach is based on behavioural economics that assumes that people are not rational beings\(^{37}\), the latter approach does not consider irrational human behaviours. It bases its argument on the risk and reward of internal reporting and quantifies them in monetary terms in exchange for acting in a particular way\(^{38}\). An optimal incentive is the minimum amount that accomplishes the established organizational goal. If the goal were to obtain tips through internal reporting, the optimal incentive would be the minimum amount that quantifies the risk that a staff member is willing to take. A weak incentive is any incentive below this level.\(^{39}\) Despite the assumption of human rationality, it is undeniable that even the optimal amount precisely calculated by economic theory is affected by non-financial factors such as psychological or situational factors\(^{40}\).

The following section reviews the incentive system based on traditional economic theory, but it also reflects the psychological and situational factors to the certain level.

The incentive system is premised on three assumptions: (i) people do not always act in accordance with the moral and ethical standards expected from organizations; (ii) people are less likely to take a risks when it is not certain whether or not they will be protected from possible retaliation; and (iii) people are likely to take risks when they perceive rewards for reporting or penalties for not reporting. In the incentive theory, it quantifies the risk of internal reporting and tries to answer the question, “how much does it cost to make someone to take more risk (i.e. moral hazard\(^{41}\))?” Table 1 illustrates potential benefits to whistle-blowers and organizations, taking into consideration the probability of reporting and non-reporting and successful and unsuccessful substantiation of cases.

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\(^{36}\) Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (1776, Book 3, Chapter 2) Sharecropping is thought of as a trade-off between incentives and risk. Farming is risky, in part because of the uncontrollable nature of the weather. Metayer paying a fixed rents would leave him with maximum exposure to risk, but minimum incentive to shirk. On the other hand a fixed wage would provide the metayer with maximum shelter from risk but minimum incentive to do any work. The landowner will maximize his/her return from a contract by finding the optimal trade-off between providing incentives and providing shelter from risk.

\(^{37}\) Behavioral Economics assume that people: (i) don't behave consistently over time; (ii) mispredict their future preference; (iii) overestimate their own ability; (iv) are impacted by emotion; (v) are impacted by framing; and (vi) are impacted by reference points.


\(^{40}\) According to “Reason-based choice: Cognition” by Eldar Shafir (1993), people are risk seeking or averse depending on the individual and family situations or life stage that they are in.

\(^{41}\) In economics, moral hazard occurs when one person takes more risks because someone else bears the cost of those risks. A moral hazard may occur where the actions of one party may change to the detriment of another after a financial transaction has taken place.
Table 1
Potential benefits to whistle-blower and organization by internal reporting

<table>
<thead>
<tr>
<th>Probability</th>
<th>Outcome of internal reporting (X)</th>
<th>Benefits to whistle-blower (W)</th>
<th>Organizational benefits by internal reporting (Y = X - C)</th>
<th>Overall benefits (S = W + Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When reported</td>
<td>p</td>
<td>2</td>
<td>W₂ - C</td>
<td>2 - W₂</td>
</tr>
<tr>
<td></td>
<td>1 - p</td>
<td>1</td>
<td>W₁ - C</td>
<td>1 - W₁</td>
</tr>
<tr>
<td>When not reported</td>
<td>1</td>
<td>1</td>
<td>W₁</td>
<td>1 - W₁</td>
</tr>
</tbody>
</table>

Source: Economics of incentive problems page 95-101

One with the knowledge of fraudulent acts committed in the organization takes one of two courses of action: (i) report the case to the management or the designated function of the organization; or (ii) do nothing. When one decides to report a case, it will lead to two outcomes: successful or unsuccessful substantiation of the case. The probability of successful substantiation is expressed as “p” and outcome to be brought by internal reporting is expressed as “X=2”. When one decides not to report, the outcome is expressed as “X=1”. The probability of unsuccessful substantiation of the reported case due to inadequate evidence is expressed as “1 – p” and the outcome brought by internal reporting is expressed as “X=1”.

Assuming that, (i) the cost of internal reporting or whistle-blowing is “C”, (ii) the reward to be given to the whistle-blower for successful substantiation (“X=2”) is “W2“, and (iii) that for unsuccessful substantiation (“X=1”), “W1“ is the benefit of the whistle-blower by internal reporting and can be expressed as “W2 – C” or “W1 - C.” Further, the net benefits to be brought to the public, organization, and individuals by internal reporting (“Y”) can be expressed either as “Y = 2 – W2” or “Y = 1 – W1”; therefore, the overall benefit (“S = W + Y”) is expressed as follows:

a) When a case is reported and substantiated, S = (W₂ - C) + (2 - W₂) = 2 - C
b) When a case is reported and not substantiated, S = (W₁ - C) + (1 - W₁) = 1 - C
c) When a case is not reported, S = W₁ + (1 - W₁) = 1

Further, the following five conditions must be met to establish that internal reporting through the designated function (i.e. the Ethics Office, oversight functions) is realistic and effective for whistle-blowers based on the incentive theory.

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42 Establishing the specialized functions such as the Ethics Office or the oversight function which handle cases, regardless of actual receipt of cases, bears the positive result of “1” (i.e. increased awareness, sense of security, etc.). Additionally, through internal reporting, it can bear the additional positive result of “1” (i.e. substantiation of the case, damage recovery, etc.). Therefore, in cases of non-reporting, the result is always “X=1” instead of “X=0” since mere existence of the functions intends to bring some positive impact. In cases of reporting, the result is either “X=1” (case is not substantiated) or “X=2” (in addition to above, case is substantiated. “X=1+1”)

---
The five conditions for the effective incentive mechanism are expressed in the following formulas.

**Condition 1: Expected benefit to whistle-blower when a case is reported must be greater than the expected benefit of non-reporting.**

In order for one to blow the whistle, the potential benefit of internal reporting should be more than zero, whether or not the case is substantiated. Therefore, $W_1 \geq 0, W_2 \geq 0$ (Condition 1)

**Condition 2: Expected overall benefit (i.e. the public, organizational, personal benefit) when a case is reported must be greater than the expected benefit when it is not reported.**

Assuming that: (i) expected overall benefit by internal reporting is “SE”; and (ii) expected benefit by non-reporting is “SN”, the formula “SE > SN” must be establish to make internal reporting meaningful since there would be no point encouraging internal reporting if it does not bear tangible and intangible benefit to the society, organization and whistle-blower. The expected overall benefit by internal reporting can be expressed as below.

\[ SE = (2 - C) p + (1 - C) (1 - p) = p - C + 1 \]

\[ SN = 1 \times 1 = 1 \]

\[ SE - SN = (p - C + 1) - 1 = p - C, \text{ therefore, } p - C > 0 \text{ (Condition 2)} \]

**Condition 3: Expected benefit to whistle-blower when a case is reported must be greater than the cost of whistle-blowing.**

Assuming that: (i) expected benefit to whistle-blower when a case is reported is “WE”; and the benefit when not reported is “WN”, such expected benefits can be expressed as below.
a) Expected benefit to whistle-blower when a case is reported and resulted in either substantiation (probability = p) or non-substantiation (probability = 1-p).

\[ WE = (W2 - C) p + (W1 - C)(1 - p) = W2 p - C p + W1 - W1 p - C + C p \]
\[ = (W2 - W1) p + W1 - C \]

b) Expected benefit to whistle-blower when a case is not reported. \( WN = W1 \)

Given the condition that the expected benefit of reporting is greater than that of non-reporting ("WE ≥ WN"), the formula condition is established.

\[ WE - WN \geq 0 \]
\[ = ((W2 - W1) p + W1 - C) - W1 \geq 0, \text{ therefore, } (W2 - W1) p \geq C \text{ (Condition 3)} \]

**Condition 4: Expected benefit to whistle-blower when a case is reported must be greater than zero. ("WE ≥ 0")**

Whistle-blower is likely to report a case only when he or she will not suffer the negative consequence by reporting. Therefore, the minimum reward level that whistle-blower can take is zero.

\[ WE \geq 0 \]
\[ = (W2 - W1) p + W1 - C \geq 0 \text{ (Condition 4)} \]

**Condition 5: There must be benefit of having the centralized functions to promote internal reporting (i.e. the Ethics Office, oversight functions).**

Assuming that the expected benefit to the public, organization and individuals when a case is reported is “YE”, it can be sought by the formula below. Values of “YE” are found on the indifference line/curve\(^\text{44}\) as illustrated in Chart 1.

\[ YE = (2 - W2) p + (1 - W1) (1 - p) \text{ (Condition 5)} \]

On the coordinate plane below, x-axis indicates the expected benefit to whistle-blower when a case is reported (“W2”), and y-axis indicates the expected benefit to whistle-blower when a case is not reported (gross of the associated cost). Based on the formula in Condition 3, the incentives of internal reporting can be expressed as “C/p”, given the probability of successful substantiation as “p” and the incentive of non-reporting as “C/(1-p)” given the probability of unsuccessful substantiation as “1-p.” Chart 3 illustrate the incentive mechanisms for whistle-blower and organization.

\(^{43}\) Expected benefit that one desires at minimum. Whistle-blower wish to avoid any negative consequences, therefore it is set at “more than zero”.

\(^{44}\) An indifference curve is a graph showing combination of two goods that give the consumer equal satisfaction and utility. Each point on an indifference curve indicates that a consumer is indifferent between the two and all points give her/him the same utility. In this case, customer is whistle-blower and utility is expected benefit gained through internal reporting.
The combinations of (W1, W2) which satisfy condition 3 are found on the line AB and in the area above the line. The combinations which satisfy Condition 4 are located on the line AC and the area above the line. Therefore, the combinations of (W1, W2) which satisfy both Conditions 3 and 4 are found in the area highlighted in blue including the border line. Among the combinations of (W1, W2) which satisfy both Conditions 3 and 4, the ones with the highest expected benefit of having the centralized functions to promote internal reporting (“YE”) are the ideal incentive mechanism.

The benefit of having the centralized functions to promote internal reporting (“YE = (2 – W2) p + (1 – W1) (1– p)”) is expressed as dotted lines parallel to AC. For cost effectiveness, however, organizations wish to keep (W1, W2) as low as possible while meeting Condition 3 and 4. The lowest combination of (W1, W2) in the highlighted area and on the “YE” line is the point A. Therefore, (W1, W2) = (0, C/p). This represents that the expected benefit to whistle-blower would be zero when he or she decides not to report a case or the reported case is not successfully substantiated. The expected benefit of internal reporting to whistle-blowers would be C/p when it results in a successful substantiation.

4.5.1 Examples: Quantify incentive for internal reporting

Based on the incentive theory in the previous section, the reward level for internal reporting can be estimated based on the potential cost to the whistle-blower. The following case demonstrates the

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computation of the cost of internal reporting by applying the incentive theory. It shows that various
personal factors influence the computation of the reward level.\(^{46}\)

Notes
- These four examples are created solely for the purpose of demonstrating the computation, and
thus, they do not represent the information of real employees.
- The formulas do not reflect the increment of occupational step and months of the age to
simplify the calculation.
- The probability of negative consequences as well as the probability of successful
substantiation represent the likelihood “perceived” by whistle-blowers.

**Case 1:**

<table>
<thead>
<tr>
<th>Occupational grade:</th>
<th>G5/VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>28 years old</td>
</tr>
<tr>
<td>Marital status:</td>
<td>Single</td>
</tr>
<tr>
<td>Number of dependents:</td>
<td>None</td>
</tr>
<tr>
<td>Duty station:</td>
<td>Bangkok/Thailand</td>
</tr>
<tr>
<td>Monthly salary:</td>
<td>THB 95,429 = USD 2,767 at 0.029(^{47}) (gross of pension, medical and dental insurance and other contributions)</td>
</tr>
<tr>
<td>Possible negative consequences:</td>
<td>Staff estimates that at a 30 per cent of probability, his contract is not renewed at the time of expiration, but he is likely to be re-hired by another organization at the similar salary level within six months after resignation.</td>
</tr>
<tr>
<td>Probability of successful substantiation ((p)):</td>
<td>90 per cent</td>
</tr>
</tbody>
</table>

The cost of possible negative consequences is calculated as follows.

\[
C = \text{Monthly salary} \times \text{the maximum number of months without salary} \times \text{probability of occurrence.}
\]

Therefore, \(C = 2,767 \times 6 \times 0.3 = 4,980\).

At the probability of 90 per cent \((p = 0.9)\), the optimal incentive is:

\[
\frac{C}{p} = \frac{4,980}{0.9} = 5,534. \text{ Therefore, } (W_1, W_2) = (0, 5,534)
\]

Based on the incentive theory, the staff is willing to report wrongdoing if he is rewarded USD 5,534 in compensation for the risk-taking. The theory assumes that it would benefit the organization when the cost recovery and intangible benefits gained through the successful substantiation of the case is above USD 5,534.

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\(^{46}\) The salary scale of the International Civil Service Commission is referred to estimate the monthly salary amount of the individuals in the sample cases. However, the amounts are not meant to be an exact figure, but presented for the purpose of demonstrating the calculation methodology.

\(^{47}\) Foreign exchange rate as of 22/10/2017.
Case 2

<table>
<thead>
<tr>
<th>Occupational grade:</th>
<th>P3/V1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>55 years old(^{48})</td>
</tr>
<tr>
<td>Marital status:</td>
<td>Married</td>
</tr>
<tr>
<td>Number of dependents:</td>
<td>Two children and no dependent spouse</td>
</tr>
<tr>
<td>Duty station:</td>
<td>New York/USA</td>
</tr>
<tr>
<td>Monthly salary:</td>
<td>USD 9,802 (gross of pension, medical and dental insurance and other contributions)</td>
</tr>
<tr>
<td>Possible negative consequences:</td>
<td>Staff estimates that at a 60 per cent of probability, she is blocked from promotions for the rest of her services in the organization.</td>
</tr>
<tr>
<td>Probability of successful substantiation ((p)):</td>
<td>75 per cent</td>
</tr>
</tbody>
</table>

Assuming that: (i) the monthly salary at the next level is about USD10,487; (ii) she would have been promoted within one year if there were no whistle-blowing; and (iii) her retirement age is 62 years old, the cost of possible negative consequences is calculated as follows.

\[ C = (10,487 - 9,802) \times (62 - 56) \times 12 \times 0.6 = 29,592 \]

At the probability of 75 per cent \((p = 0.75)\), the optimal incentive is:

\[ C/p = 29,592/0.75 = 39,456. \text{ Therefore, } (W1, W2) = (0, 39,456) \]

Based on the incentive theory, the staff is willing to report wrongdoing if she is rewarded USD 39,456 in compensation for the risk-taking\(^{49}\). The theory assumes that it would benefit the organization when the cost recovery and intangible benefits gained through the successful substantiation of the case is above USD 39,456.

Case 3

<table>
<thead>
<tr>
<th>Occupational grade:</th>
<th>D1/I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>58 years old(^{50})</td>
</tr>
<tr>
<td>Marital status:</td>
<td>Married</td>
</tr>
<tr>
<td>Number of dependents:</td>
<td>Three children and one dependant spouse</td>
</tr>
<tr>
<td>Duty station:</td>
<td>Kinshasa/Democratic Republic of Congo</td>
</tr>
<tr>
<td>Monthly salary:</td>
<td>USD 12,952 (gross of pension, medical and dental insurance and other contributions)</td>
</tr>
</tbody>
</table>

\(^{48}\) To simplify the calculation, months are not considered.

\(^{49}\) The figure does not consider potential impact on the pension payments due to the lack of promotion.

\(^{50}\) To simplify the calculation, months are not considered.
**Possible negative consequences:**

<table>
<thead>
<tr>
<th>Probability of successful substantiation (p):</th>
<th>Staff estimates that at a 20 per cent of probability, he voluntarily or involuntarily leaves the organization and remained unemployed after resignation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 per cent</td>
<td></td>
</tr>
</tbody>
</table>

The cost of possible negative consequences is calculated as follows.

\[ C = 12,952 \times (62 - 58) \times 12 \times 0.2 = 124,339 \]

At the probability of 50 per cent \((p = 0.5)\), the optimal incentive is:

\[ \frac{C}{p} = \frac{124,339}{0.5} = 248,678. \text{ Therefore, } (W_1, W_2) = (0, 248,678) \]

Based on the incentive theory, the staff is willing to report wrongdoing if she is rewarded USD 248,678 in compensation for the risk-taking. The theory assumes that it would benefit the organization when the cost recovery and intangible benefits gained through the successful substantiation of the case is above USD 248,678.

**Case 4**

<table>
<thead>
<tr>
<th>Occupational grade:</th>
<th>G6/V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>40 years old</td>
</tr>
<tr>
<td>Marital status:</td>
<td>Married</td>
</tr>
<tr>
<td>Number of dependents:</td>
<td>One child and one dependant spouse</td>
</tr>
<tr>
<td>Duty station:</td>
<td>Naqoura/Lebanon</td>
</tr>
<tr>
<td>Monthly salary:</td>
<td>LBP 8,075,833 = USD 5,341 at 0.00066 (^{51}) (gross of pension, medical and dental insurance and other contributions)</td>
</tr>
</tbody>
</table>

Possible negative consequences:

Staff estimates that at a 30 per cent of probability, her contract is not renewed at the time of expiration. She perceives it extremely difficult to get another job at the similar salary level after resignation.

| Probability of successful substantiation (p): | 80 per cent |

Assuming that (i) the current contract will expire in 1.5 years; (ii) her contract would have been renewed if there were no whistle-blowing; (iii) she would have been promoted to the next level within 10 years if there were no whistle-blowing; and (iv) the monthly salary at the next level is about LBP 9,692,750 (equivalent to USD 6,410), the cost of possible negative consequences is calculated as follows:

\[ C = \{5,341 \times (50 - 1.5 - 40) \times 12 + 6,410 \times (62 - 50) \times 12\} \times 0.3 = 440,347 \]

\(^{51}\) Foreign exchange rate as of 10/22/2017.
At the probability of 80 per cent \( (p = 0.8) \), the optimal incentive is:
\[
\frac{C}{p} = \frac{440,347}{0.8} = 550,433. \text{ Therefore, } (W_1, W_2) = (0, 550,433)
\]

Based on the incentive theory, the staff is willing to report wrongdoing if she is rewarded USD 550,433 in compensation for the risk-taking. The theory assumes that it would benefit the organization when the cost recovery and intangible benefits gained through the successful substantiation of the case is above USD 550,433.

### 4.5.2 Limitation of the incentive theory

The most significant challenge in adopting the incentive theory is its inability for consistent application. Because of the heterogeneity of cases, it is difficult for the third party to objectively estimate the reward level and consistently apply the methodology. This is also because the calculation is influenced by the subjectivity of the whistle-blower. The calculation applies the probability perceived by the whistle-blower, and such perception cannot be reasonably quantified by the third party. The “perception” may be rationalized after the fact, but it still lacks an objective ground. For example, when the staff actually suffers negative consequence (i.e. being blocked from promotion, non-renewal of contract etc.) while he estimated the probability of occurrence at 50 per cent, there is no logical basis to prove that the event, in fact, happened at the estimated probability (i.e. 50 per cent), but not 60 or 40 per cent or other probabilities. People’s perceptions cannot be quantified in a consistent and systematic manner and this is the fundamental limitation of the incentive theory for implementation.

A similar issue is observed in the probability of successful case substantiation. The probability of successful substantiation is based on the subjective projection (i.e. subjective probability\(^52\)). It is difficult to estimate the probability since there are unknown factors prior to the investigation that might influence the probability of successful substantiation in any stage of the investigation. One might argue that the reward level should be set equal to all whistle-blowers without considering human factors. According to the incentive theory, however, distribution of an equal reward would decrease its effectiveness as an incentive\(^53\).

\(^{52}\) F.D. Fincham, J.M. Jaspars (1983), “A subjective probability approach to responsibility attribution.” A probability derived from an individual’s personal judgment about whether a specific outcome is likely to occur. It contains no formal calculations and only reflects the subject's opinions and past experience. Subjective probabilities differ from person to person, and they contains a high degree of personal bias.

Another challenge is possible financial implications for the organization. As demonstrated in the four cases, the incentive payments can add up to a significant cost to the organization. Although promoting internal reporting might bear other beneficial results than potential cost recovery, such as promoting the ethical culture and transparency, the implementation of the incentive system still needs to be justified by the tangible financial recovery. However, the historical cases proved that even the cases that were successfully substantiated by the investigation did not always result in full or partial recovery of losses suffered by the organization.

4.6 Crowding out intrinsic motivations
In the field of Behavioral Economics, various studies demonstrated the effect of monetary incentives such as encouraging weight loss, promoting healthy eating, and improving students’ performance\(^5^4\). However, in the case of internal reporting where the risk of retaliation is involved, it’s impossible to set a single reward level that fits everyone because the cost of internal reporting is largely affected by factors specific to each individual. The reward level is also affected by how the United Nations views the intrinsic motivation or ability of employees. This complexity alone makes the monetary compensation policy ineffective. Moreover, there is a high risk of crowding out the intrinsic motivation of employees who want to undertake a prosocial task. It might also create an inference that internal reporting is a risky and unpleasant task and that's why they are compensated. Furthermore, the monetary incentive policy would introduce new risks, such as the reporting of false information or exacerbating the situation once the incentives are removed. In any circumstances, monetary incentives are unlikely to lead to desired habit formation.

4.7 Challenge of cost recovery
While the organization, with its policies, rules, and regulations, can impose the disciplinary measures on perpetrators, including recovering company loss from the individual’s pension, there are various challenges in pursuing action against current and former staff members. Recovery of loss may be possible through referral to national authorities for criminal and civil proceedings; however, the protocol and process to initiate such an action are complex and cumbersome and it usually takes a significant amount of time to finally recover part or all of the loss after criminal or civil proceedings. JIU indicated in its report\(^5^5\):


\(^{55}\) JIU/REP/2016/4, para. 324
“a former staff member, despite proof by internal investigative processes that he/she has committed misconduct and/or fraud, would enjoy his/her pension in full (in addition to any fraudulent monetary gains), unless a final judgment by a national court is made in favour of the United Nations system organization. Such a favourable judgment would allow access, in some jurisdictions, to the pension of the staff member concerned for recovering fraud losses and assets. Such a judgment may also provide an opportunity and basis for initiating possible civil proceedings to recover losses and damages from other assets of the convicted individual in certain jurisdictions under certain circumstances. However, for obtaining a possible favourable judgment for the United Nations system, a referral needs to be made with all the challenges and issues.”

It would be ideal if perpetrators bear the cost of the incentive system, but it does not seem realistic considering various challenges the organization faces in recovering loss.

4.8 Challenge of handling incoming cases
It has been a challenge to process incoming cases with the given resources and capacity of the investigation function of the United Nations. In fact, the number of cases coming to the office per year has already been far greater than the combined total of the average numbers of cases that the investigators could handle every year. According to the annual report of the Office of Internal Oversight Services, from 1 July 2015 to 30 June 2016, 229 matters pertaining to non-peacekeeping operations were reported to the investigation division, representing an increase of 29 per cent over the previous year and comprising 40 per cent of all reported matters. For cases related to peacekeeping operations, the office issued 64 reports, including 22 investigation reports, 19 contingent reports, and 23 closure reports. The Office also referred 119 matters to other offices or entities for possible action. Even referrals need to follow the process, and it takes an average processing time of about 50 days.

Considering the number of incoming cases as compared to the number of investigators, it would be beneficial for the organization to revisit the process of intake, referral, and investigation to simplify the requirements while still maintaining the quality and integrity of the process.

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56 With respect to staff members convicted of crimes of which the United Nations was the victim, the Organization may seek, pursuant to article 45bis of the Regulations of the United Nations Joint Staff Pension Fund, a portion of a benefit payable to such person; recovery of assets from a staff member’s pension from the Fund would be possible if the staff member expressed his or her formal consent to the recovery from the Fund.

57 A/71/331 issued on 15 August 2016, A70/318 (Part II) issued on 22 February 2016
5. Conclusions and recommendation

The study compared various approaches to counter fraud and corruption. During the study, however, it became evident that there was no single approach or control activity that is effective by itself or fits for all organizations. For example, instituting the awareness training bore different impacts on employees in different organizations depending on the organizational culture and how it is delivered and followed up on (no follow-up, discussion in a group, with managers, or human resource or ethics office, follow-up exams etc.). In some organizations, the training seems to have led to a higher percentage of internal reporting although their direct causation could not be substantiated. In other organizations, no noticeable changes in the number of fraud or corruption cases or the morale of employees were observed. Similarly, the effectiveness of the anti-fraud and corruption policies depended on the level of organizational efforts in terms of their dissemination and enforcement. Some organizations faced challenges in swiftly responding to the cases of non-compliance with the established policies and taking concrete actions against those who failed to adhere to the policies. This condition was often observed in the public organizations where one must follow a multi-layered process before taking an action. Perceived and actual lack of consequences made the policies a mere façade rather than practical tools to combat fraud and corruption.

The incentive system seems theoretically valid; however, practically, it is not a viable tool. The most significant challenge in adopting the incentive theory is its inability of consistent application. Because of heterogeneity of cases and because the calculation is influenced by the subjectivity of the whistle-blower, it is difficult for the third party to objectively estimate the reward level and consistently apply the methodology. The calculation applies the probability perceived by the whistle-blower and such perception cannot be reasonably quantified by the third party.

There are also significant financial implications for the organization. Ideally, the cost of the incentive system should be borne by culpable individuals who caused the organization financial damages, but such a measure is unrealistic because the organization cannot impose the rule equally to all culpable individuals. Moreover, not all the fraud and corruption cases can be quantified in monetary terms. The United Nations has had the mechanism to collect liabilities of its personnel from their salary; however, the historical cases showed that it is a significant challenge to retroactively collect liabilities. It is especially difficult when implicated persons had been suspended or terminated, or there were not sufficient personal funds (i.e. salaries) from which the organization could collect.

As compared to the incentive theory based on traditional economic theory, numerous studies presented the effectiveness of behaviourally informed interventions. Behaviourally informed policy can provide creative solutions to difficult challenges, often at a lower cost. While more calculations
are needed to determine the relative effectiveness of the tools in the domain of internal reporting, the organization should consider the behaviourally informed interventions as the policy tools. The World Bank is a pioneer in applying behavioural economics in various programmes. The Mind, Behaviour, and Development Unit (eMBeD) is the World Bank’s behavioural sciences team who works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviourally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and increase equity. Following the example of the World Bank, it would be beneficial for the United Nations to adopt the concepts of behavioural economics in various policy areas.

Lastly, among a number of variable factors in relation to the effective approaches to counter fraud and corruption, there is one fixed factor that is fundamental to any measures to prevent, detect and respond misconducts – the strong control environment. The control environment has a pervasive structure that affects other control activities or approaches to counter fraud and corruption. The stronger control environment serves as the foundation for other control activities to function as intended. In other words, if the control environment is weak, any approaches or control activities, regardless of their extent, lose their effectiveness. The control environment is the management’s integrity and ethical values, operating philosophy and commitment to organizational competence. It is “tone at the top” that makes all other organizational efforts effective or ineffective. It has become increasingly important for the United Nations to ensure that the senior management demonstrates zero tolerance to fraud and corruption, promotes internal reporting and protects whistle-blowers with all means necessary as their commitments flow from the top through staff members at all the levels.

Recommendation: The present report suggests that the United Nations establish a dedicated unit (similar to the Mind, Behaviour, and Development Unit of the World Bank) that works closely with project teams to diagnose, design, and evaluate behaviourally informed interventions in the area of internal reporting.
Annex I Events relating to anti-fraud and corruption and whistle-blower protections

<table>
<thead>
<tr>
<th>When</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 December 1977</td>
<td>Foreign Corrupt Practices Act was enacted by the 95th United States Congress(^{58}).</td>
</tr>
<tr>
<td>2 August 1991</td>
<td>Administrative instruction on disciplinary measure and procedures was revised (ST/AI/371)(^{59}).</td>
</tr>
<tr>
<td>12 August 1994</td>
<td>Resolution 48/218 B on review of the efficiency of administrative and financial functioning of the United Nations was adopted(^{60}).</td>
</tr>
<tr>
<td>7 September 1994</td>
<td>The Secretary-General’s bulletin on establishment of the Office of Internal Oversight Services was issued to assist the Secretary-General in fulfilling his internal oversight responsibilities. (ST/SGB/273)</td>
</tr>
<tr>
<td>7 September 1994</td>
<td>Administrative instruction on reporting of inappropriate use of United Nations resources and proposals for improvement of programme delivery was issued. (ST/AI/397)</td>
</tr>
<tr>
<td>29 March 1996</td>
<td>The Inter-American Convention against Corruption was adopted by the Organization of American States.</td>
</tr>
<tr>
<td>26 May 1997</td>
<td>The Convention on the Fight against Corruption involving Officials of the European Communities or Officials of Member States of the European Union was adopted by the Council of the European Union(^{61}).</td>
</tr>
<tr>
<td>21 November 1997</td>
<td>The Convention on Combating Bribery of Foreign Public Officials in International Business Transactions was adopted by the Organisation for Economic Cooperation and Development(^{62}).</td>
</tr>
<tr>
<td>27 January 1999</td>
<td>The Criminal Law Convention on Corruption was adopted by the Committee of Ministers of the Council of Europe(^{63}).</td>
</tr>
<tr>
<td>4 November 1999</td>
<td>The Civil Law Convention on Corruption was adopted by the Committee of Ministers of the Council of Europe(^{64}).</td>
</tr>
<tr>
<td>4 December 2000</td>
<td>Resolution 55/61 established an ad hoc committee for an effective international legal instrument against corruption.</td>
</tr>
<tr>
<td>21 December 2001</td>
<td>Resolutions 57/186 (2001) and 57/244 (2002) on preventing and combating corrupt practices and transfer of funds of illicit origin and returning such funds to the countries of origin was adopted.</td>
</tr>
<tr>
<td>24 July 2001</td>
<td>Economic and Social Council issues resolution 2001/13, entitled “Strengthening international cooperation in preventing and combating the transfer of funds of illicit origin, derived from acts of corruption, including the laundering of funds, and in returning such funds.”</td>
</tr>
<tr>
<td>4-7 December 2001</td>
<td>Argentina hosted the informal preparatory meeting of the ad hoc committee for the negotiation of a convention against corruption.</td>
</tr>
<tr>
<td>18-22 March 2002</td>
<td>The Monterrey Consensus was adopted by the International Conference on Financing for Development.</td>
</tr>
<tr>
<td>18 December 2002</td>
<td>Resolution 57/169 accepted the offer by Mexico to host a high-level political conference for the purpose of signing the convention.</td>
</tr>
<tr>
<td>27 December 2002</td>
<td>Administrative instruction on official hospitality was issued (ST/AI/2002/8)(^{65}).</td>
</tr>
</tbody>
</table>

\(^{58}\) The act was amended in 1988 and in 1998
\(^{59}\) Amended on 11 May 2010 in ST/AI/371/Amend.1
\(^{60}\) Joint Inspection Unit presented its report on “Accountability and Oversight in the United Nations system”, which concerned mainly the oversight functions in the system at that time. The resolution called for a consolidation of oversight functions in audit, evaluation, inspections and investigations. Since then the system has slowly built up various components relating to accountability over the years, notably in the following reports and resolutions: A/60/312, A/60/883 and Add.1 and 2, A/60/846/Add.6, A/62/701 and Corr.1 and Add.1; resolutions 60/1 and 61/245. \(^{61}\) Official Journal of the European Communities, C 195, 25 June 1997
\(^{62}\) Corruption and Integrity Improvement Initiatives in Developing Countries (United Nations publication, Sales No. E.98.III.B.18)
\(^{63}\) Council of Europe, European Treaty Series, No. 173
\(^{64}\) Ibid., No. 174
\(^{65}\) Amended on 27 August 2008 in ST/AI/2002/8/Amend.1
21 November 2003  Resolution 58/4 on the United Nations Convention against Corruption was adopted as a result of the resolution 55/61 (4 December 2000) above.

9-11 December 2003  The United Nations Convention against Corruption was held in Mexico in accordance with resolution 57/169.

24 March 2005  Information Circular on reporting of suspected misconduct was issued. (ST/IC/2005/19)

21 April 2005  Resolutions 59/287 on report of the Office of Internal Oversight Services on strengthening the investigation functions in the United Nations was adopted.

8 January 2008  Resolutions 62/63 on criminal accountability of United Nations officials and experts on mission was adopted.

12 September 2005  The Secretary-General’s bulletin on integrity awareness initiative was issued (ST/SGB/2005/17).

28 November 2005  The Secretary-General’s bulletin on prevention of workplace harassment, sexual harassment and abuse of authority was issued. (ST/SGB/2005/20)

28 November 2005  Report of the General Assembly (A/60/568) on integrated and coordinated implementation of and follow-up to the outcomes of the major United Nations conferences and summits in the economic, social and related fields was issued.

19 December 2005  The Secretary-General’s bulletin on protection against retaliation for reporting misconduct and for cooperating with duly authorized audits or investigations was issued (ST/SGB/2005/21).

30 December 2005  The Secretary-General’s bulletin on Ethics Office – establishment and terms of reference” was issued (ST/SGB/2005/22).

10 April 2006  The Secretary-General’s bulletin on financial disclosure and declaration of interest statements was issued (ST/SGB/2006/06).

7 March 2007  Resolution 61/245 on comprehensive review of governance and oversight within the United Nations and its funds, programmes and specialized agencies was adopted.

21 November 2007  Resolution 62/448 on Criminal Accountability of United Nations officials and experts on mission was issued.

30 November 2007  The Secretary-General’s bulletin on United Nations system-wide application of ethics: separately administered organs and programmes was issued. (ST/SGB/2007/11)

6 February 2008  Resolution 62/228 on administration of justice at the United Nations was adopted.

14 January 2010  Administrative instruction on reporting, retaining and disposing of honours, decorations, favours, gifts or remuneration from governmental and non-governmental sources was issued (ST/AI/2010/1).

29 January 2010  Report of the Secretary General on towards an accountability system in the United Nations Secretariat (A/64/640) was issued.

8 April 2010  The United Kingdom Bribery Act 2010 was enacted by the Parliament.

5 May 2010  Resolutions 64/259 on an accountability system in the United Nations Secretariat was adopted.

17 March 2011  Resolution 65/247 on human resource management was issued, requesting a comprehensive report on conflict of interest. The report to the General Assembly on personal conflict of interest was issued on 27 June 2011 (A/66/98).

10 February 2012  Report of the Secretary General on Progress towards an accountability system in the United Nations Secretariat was issued (A/66/692) in response to the General Assembly resolution 64/259.

July 2013  An updated version of United Nations standard of conduct for international civil service was issued by International Civil Service Commission.

September 2013  United Nations supplier code of conduct, rev. 05 was issued.

2 December 2014  Report of the third committee on crime prevention and criminal justice was issued. (A/69/489)

5 February 2015  Resolution 69/199 on preventing and combating corrupt practices and the transfer of

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67 In relation to staff regulation 1.2, under its subsections (j), (k) and (l), subsections (j) and (k) of staff regulation 1.2, and subsection (l) as well as staff rule 1.2, subsections (k), (l), (m), (n) and (o).

68 Commenced in 1 July 2011

69 Reissued for technical reason on 28 February 2012
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>28 July 2015</td>
<td>Report of the Secretary General on criminal accountability of United Nations officials and experts on missions was issued. (A/70/208)</td>
</tr>
<tr>
<td>22 June 2016</td>
<td>The Secretary-General’s bulletin on terms of reference for the Office of the United Nations Ombudsman and Mediation Services was issued (ST/SGB/2016/7)).</td>
</tr>
<tr>
<td>20 July 2016</td>
<td>Report of the Secretary General on Criminal accountability of United Nations officials and experts on mission was issued (A/71/167) in response to the General Assembly resolution 70/114.</td>
</tr>
<tr>
<td>21 July 2016</td>
<td>The Secretary-General’s bulletin on status, basic rights and duties of United Nations staff members was issued in response to the request of the General Assembly in its resolution 52/252 on 8 September 1998 (ST/SGB/2016/7).</td>
</tr>
<tr>
<td>22 July 2016</td>
<td>Report of the Secretary General on Practice of the Secretary-General in disciplinary matters and cases of possible criminal behaviour, 1 July 2015 to 30 June 2016 was issued (A/71/186) in response to the General Assembly resolution 59/287.</td>
</tr>
<tr>
<td>9 September 2016</td>
<td>Information Circular on anti-fraud and anti-corruption framework of the United Nations Secretariat was issued (ST/IC/2016/25).</td>
</tr>
<tr>
<td>23 January 2017</td>
<td>The Secretary-General’s bulletin on protection against retaliation for reporting misconduct and for cooperating with duly authorized audits or investigations was issued (ST/SGB/2017/2) and replaced with the previous version (ST/SGB/2005/21).</td>
</tr>
</tbody>
</table>
Annex II Types of fraudulent Act

FRAUDULENT ACT

FRAUD

- Financial fraud
  - Overstatement
    - Timing difference
    - Fictitious revenues
    - Concealed liabilities and expenses
    - Improper asset valuations
    - Improper disclosure
  - Understatement
    - Timing difference
    - Understated revenues
    - Understated liabilities and expenses
    - Improper asset valuations
    - Improper disclosure

- Asset Misappropriation
  - Theft of cash
    - Theft of cash on hand
      - Skimming
        - Sales
          - Unrecorded
          - Understated
        - Lapping scheme
        - Unconcealed
      - Cash larceny
        - Unrecorded
        - Understated
      - Refund and other
        - Sales
          - Unrecorded
          - Understated
      - Write-off scheme
      - Unrecorded
    - Theft of receipts
      - Billing scheme
        - Shell company
          - Fictitious vendor
        - Falsified wages
      - Payroll scheme
        - Ghost employee
          - Personal purchase
          - Commission schemes
        - Fictitious expenses
      - Reimbursement scheme
        - Mischaracterized exp.
          - Inflated expenses
          - Fictitious expenses
        - Altered payee
      - Multiple reimbursement
      - Authorized maker

CORRUPTION

- Conflict of interest
- Bribery
  - Invoice kickback
  - Bid rigging
- Illegal gratuities
- Economic Extortion

Theft of inventory
  - Misuse
    - Larceny
  - Asset transfer
  - False sales/shipping
  - Purchasing/receiving
  - Unconcealed larceny

Source: Association of Fraud Examiners, Report of Nation
Annex III Detection Methods of misconducts by region

In the research conducted by the Association of Certified Fraud Examiners Inc., the information of 2,127 cases were available. Those cases were identified by the organizations located in nine geographical locations. The breakdown of 2,127 cases by region is shown below.

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Number of Cases</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,038</td>
<td>48.8%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>285</td>
<td>13.4%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>221</td>
<td>10.4%</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>112</td>
<td>5.3%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>110</td>
<td>5.2%</td>
</tr>
<tr>
<td>Eastern Europe and Western/Central Asia</td>
<td>98</td>
<td>4.6%</td>
</tr>
<tr>
<td>Southern Asia</td>
<td>98</td>
<td>4.6%</td>
</tr>
<tr>
<td>Canada</td>
<td>86</td>
<td>4.0%</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>79</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

Each of the following tables shows initial detection methods for a particular geographic region. While tips are consistently the top detection method in every region, they are especially common in Southern Asia (53.1% of cases), Eastern Europe and Western/Central Asia (47.4%), and Asia-Pacific (45.2%). Internal audit was the second-most common initial detection method in every region except Canada and the United States, where management review came in second.

Table: Detection Method by Region
Source: Association of Certified Fraud Examiners Inc. *Report to the Nations on Occupational Fraud and Abuse*

United States

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whistle-blowing</td>
<td>37.0%</td>
</tr>
<tr>
<td>Management review</td>
<td>14.3%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>14.1%</td>
</tr>
<tr>
<td>By accident</td>
<td>7.2%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>6.1%</td>
</tr>
<tr>
<td>Other</td>
<td>5.5%</td>
</tr>
<tr>
<td>Document examination</td>
<td>4.8%</td>
</tr>
<tr>
<td>External audit</td>
<td>4.0%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>2.5%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>1.9%</td>
</tr>
<tr>
<td>IT Controls</td>
<td>1.5%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Sub-Saharan Africa

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whistle-blowing</td>
<td>37.3%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>16.2%</td>
</tr>
<tr>
<td>Management review</td>
<td>10.2%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>7.4%</td>
</tr>
<tr>
<td>By accident</td>
<td>5.3%</td>
</tr>
<tr>
<td>Other</td>
<td>4.9%</td>
</tr>
<tr>
<td>Document examination</td>
<td>4.9%</td>
</tr>
<tr>
<td>External audit</td>
<td>4.9%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>2.1%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>2.1%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

Asia Pacific

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whistle-blowing</td>
<td>45.2%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>15.8%</td>
</tr>
<tr>
<td>Management review</td>
<td>13.1%</td>
</tr>
<tr>
<td>External audit</td>
<td>5.9%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>5.0%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>4.5%</td>
</tr>
<tr>
<td>Other</td>
<td>4.1%</td>
</tr>
<tr>
<td>By accident</td>
<td>2.7%</td>
</tr>
<tr>
<td>Document examination</td>
<td>1.4%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>0.9%</td>
</tr>
<tr>
<td>IT Controls</td>
<td>0.9%</td>
</tr>
<tr>
<td>Confession</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Latin America and the Caribbean

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whistle-blowing</td>
<td>36.9%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>19.8%</td>
</tr>
<tr>
<td>Management review</td>
<td>17.1%</td>
</tr>
<tr>
<td>Other</td>
<td>8.1%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>4.5%</td>
</tr>
<tr>
<td>By accident</td>
<td>3.6%</td>
</tr>
<tr>
<td>Document examination</td>
<td>2.7%</td>
</tr>
<tr>
<td>External audit</td>
<td>2.7%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>2.7%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.8%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>0.0%</td>
</tr>
<tr>
<td>IT Controls</td>
<td>0.0%</td>
</tr>
<tr>
<td>Detection Method</td>
<td>Percent of Cases</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Whistle-blowing</td>
<td>40.9%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>16.4%</td>
</tr>
<tr>
<td>Management review</td>
<td>11.8%</td>
</tr>
<tr>
<td>Other</td>
<td>8.2%</td>
</tr>
<tr>
<td>Document examination</td>
<td>4.5%</td>
</tr>
<tr>
<td>External audit</td>
<td>4.5%</td>
</tr>
<tr>
<td>By accident</td>
<td>3.6%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>3.6%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>2.7%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>1.8%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.8%</td>
</tr>
<tr>
<td>IT Controls</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

### Southern Asia

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
<th>Detection Method</th>
<th>Percent of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whistle-blowing</td>
<td>53.1%</td>
<td>Whistle-blowing</td>
<td>32.6%</td>
</tr>
<tr>
<td>Internal audit</td>
<td>21.9%</td>
<td>Internal audit</td>
<td>20.9%</td>
</tr>
<tr>
<td>Management review</td>
<td>9.4%</td>
<td>Management review</td>
<td>16.3%</td>
</tr>
<tr>
<td>Account reconciliation</td>
<td>5.2%</td>
<td>Other</td>
<td>9.3%</td>
</tr>
<tr>
<td>By accident</td>
<td>4.2%</td>
<td>By accident</td>
<td>7.0%</td>
</tr>
<tr>
<td>Surveillance/monitoring</td>
<td>3.1%</td>
<td>Account reconciliation</td>
<td>3.5%</td>
</tr>
<tr>
<td>Other</td>
<td>1.0%</td>
<td>Document examination</td>
<td>3.5%</td>
</tr>
<tr>
<td>External audit</td>
<td>1.0%</td>
<td>External audit</td>
<td>2.3%</td>
</tr>
<tr>
<td>Confession</td>
<td>1.0%</td>
<td>Notified by law enforcement</td>
<td>2.3%</td>
</tr>
<tr>
<td>Document examination</td>
<td>0.0%</td>
<td>IT Controls</td>
<td>1.2%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
<td>0.0%</td>
<td>Confession</td>
<td>1.2%</td>
</tr>
<tr>
<td>IT Controls</td>
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<td>Surveillance/monitoring</td>
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</tbody>
</table>

### Middle East and North Africa

<table>
<thead>
<tr>
<th>Detection Method</th>
<th>Percent of Cases</th>
<th>Detection Method</th>
<th>Percent of Cases</th>
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</thead>
<tbody>
<tr>
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<tr>
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</tr>
<tr>
<td>Account reconciliation</td>
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<td>Other</td>
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</tr>
<tr>
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<td>By accident</td>
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<tr>
<td>Document examination</td>
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<td>2.3%</td>
</tr>
<tr>
<td>Notified by law enforcement</td>
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<td>Notified by law enforcement</td>
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</tr>
<tr>
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### Canada

<table>
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Middle East and North Africa had the highest median loss for 79 cases as $275,000. The median loss of 98 cases in Western Europe was $263,000 as the second highest and 221 cases of Asia-Pacific was $245,000 as the third highest. The region with the lowest median loss was Southern Asia as $100,000.
8. Bibliography


Association of Certified Fraud Examiners. 2015. *Benchmarking Your In-House Investigation Team.* Austin TX: Association of Certified Fraud Examiners, Inc.


