

RELATIVE IMPACTS OF MONETARY AND NON-MONETARY FACTORS ON WHISTLEBLOWING INTENTION: THE CASE OF SECURITIES FRAUD

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ABSTRACT

The Securities and Exchange Commission (SEC)'s whistleblower reward program has received much attention with its recent expansion in regards to reward amounts and whistleblowing tips. Opinions have been divided over whether whistleblower rewards, along with whistleblower protection laws, align with potential whistleblowers' decision-making, and this disagreement has arisen from our insufficient understanding of the relative importance of the factors affecting whistleblowers' decisions. The author conducted a survey of U.S. employees using a securities fraud scenario and then used a path analysis to estimate the relative impacts of the factors affecting employees' internal and external whistleblowing intentions. The results revealed that, given the conditions assumed in the scenario, there were two main factors affecting internal whistleblowing intention: organizational commitment had a positive impact, and the fear of retaliation had a negative impact. In comparison, there were also two main factors affecting external whistleblowing intention: moral intensity and reward-driven motivation, both of which had positive impacts. The effect sizes of

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these impacts on internal and external whistleblowing intentions fell within the small-to-medium range according to conventional statistical criteria. These results implied that both monetary and non-monetary motivations can be enhanced by whistleblower policies. Whistleblower protection and timely responses by companies and the SEC are critical in improving the balance of costs and benefits to individuals resulting from internal and external whistleblowing, and monetary rewards are an effective policy tool to encourage external whistleblowing.

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INTRODUCTION

Why do employees blow the whistle on corporate crimes? What factors encourage and discourage whistleblowing, and how important is each factor? Understanding these questions is important in many jurisdictions because authorities have increasingly relied on whistleblowers to detect corporate crimes; many countries have established whistleblower protection laws, and some countries have even created monetary reward programs for whistleblowers. In order to design better whistleblower-related laws, policymakers need to comprehend the manner of decision-making by potential whistleblowers. This Article analyzes the determinants of employees' whistleblowing intention by providing empirical evidence from a survey of employees in the United States, a leading country in the use of whistleblowing tips to detect corporate crimes.

In every jurisdiction, detecting corporate crime is extremely difficult because of information asymmetry between companies and authorities about companies' business activities. The budget and resources of enforcement agencies are limited, so enforcement agencies cannot solve this information asymmetry by themselves. Under such circumstances, information asymmetry can be eased by whistleblowers—those who disclose illegal practices within a corporation to persons or organizations that may be able to take effective actions. Employees' whistleblowing tips may not only help conserve authorities' limited resources but also enable the faster detection of crimes. Therefore, how society should utilize the power of whistleblowers has been a matter of policy interest. Yet, prior literature has not fully analyzed the fundamental question of what determines employees' whistleblowing intention.

In terms of economics, employees' decisions on whether to blow the whistle depend on the personal benefits and costs resulting from their whistleblowing.¹ If the benefits exceed the costs, then employees will blow the whistle. The benefits from whistleblowing include non-monetary and monetary ones. Some may engage in whistleblowing because they receive a positive utility relating to the feeling of virtue from preventing harm to society. Others may report crimes because they value the monetary rewards offered by authorities. Similarly, the costs from whistleblowing take various

1. See, e.g., Yehonatan Givati, *A Theory of Whistleblower Rewards*, 45 J. LEGAL STUD. 43 (2016) (discussing the relationship between the personal benefits and costs of external whistleblowing); Masaki Iwasaki, *Effects of External Whistleblower Rewards on Internal Reporting* (Harvard John M. Olin Fellow's Discussion Paper Series, No. 76, 2018), http://www.law.harvard.edu/programs/olin_center/fellows_papers/pdf/Iwasaki_76.pdf [<https://perma.cc/YF5F-24QZ>] (explaining the personal benefits and costs of internal reporting and external whistleblowing).

forms. Some may suffer interference with their promotions from their supervisors and managers. Others may be forced to leave their company and look for a new job.

Corresponding to this cost–benefit structure, whistleblower-related legislation can be classified into two forms: laws that decrease employees’ costs from whistleblowing and laws that increase their benefits from whistleblowing. The first type, which reduces workers’ costs from reporting, is based on the fact that employees often suffer retaliation from the wrongdoers. As explained in Section I.A, over the past three decades, many jurisdictions have established whistleblower protection laws. Under these laws, employees are legally protected from retaliation if their whistleblowing satisfies certain requirements of the law. The degree of effectiveness of whistleblower protection laws is still an empirical question, but the need for the protection of whistleblowers is widely accepted in many jurisdictions.

The second type, which increases workers’ benefits from reporting, offers monetary rewards for employees’ whistleblowing to enforcement agencies. Several countries, such as the United States, Canada, and South Korea, have introduced whistleblower reward programs, but the number of countries with whistleblower rewards is still small relative to the number of countries with whistleblower protection laws.² The United States has proactively tried to gain whistleblowers’ information by creating whistleblower reward programs, such as those of the False Claims Act, Internal Revenue Service, Securities and Exchange Commission (SEC), and Commodity Futures Trading Commission.

Among these programs in the United States, the most booming one is the SEC whistleblower reward program under the Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd–Frank Act), which was established in 2011.³ This program offers monetary rewards for whistleblowing on violations of federal securities laws. Whistleblowers can receive a monetary reward when their information is original, of good quality, and leads to an enforcement action in which sanctions of more than \$1,000,000 are ordered.⁴ Whistleblower rewards range from 10% to 30% of the money collected. In FY 2018, the SEC awarded approximately \$168 million to 13 individuals; thus, the average amount of rewards is nearly \$13 million.⁵

2. CAITLIN MASLEN, WHISTLEBLOWER REWARD PROGRAMMES 3 (2018), <https://knowledgehub.transparency.org/assets/uploads/helpdesk/Whistleblower-Reward-Programmes-2018.pdf> [<https://perma.cc/P7DY-LDSB>].

3. Pub. L. No. 111-203, 124 Stat. 1376 (2010).

4. 15 U.S.C. § 78u-6 (2012).

5. SEC, WHISTLEBLOWER PROGRAM: 2018 ANNUAL REPORT TO CONGRESS 1 (2018), <https://www.sec.gov/sec-2018-annual-report-whistleblower-program.pdf> [<https://perma.cc/A6>].

Opinions are divided over whether whistleblower rewards, along with whistleblower protection laws, align with potential whistleblowers' decision-making. For example, some have argued that monetary rewards do not significantly encourage external whistleblowing,⁶ but others have suggested that they do.⁷ One of the reasons for these mixed conclusions is that each opinion's assumptions on whistleblowers' motivations are sometimes significantly different from one another. As whistleblower-related data are limited because of the need to protect whistleblowers' personal information, empirical analyses on whistleblowing are difficult to conduct, leading to the aforementioned discrepancy.

That being said, a certain consensus exists on what factors affect employees' whistleblowing decisions. For example, prior literature has revealed that many factors, such as moral intensity, organizational commitment, fear of retaliation, and reward-driven motivation, affect employees' reporting decisions. What has been missing so far is a full analysis of the sizes—especially the relative sizes—of these effects when these factors are considered jointly, not separately. Without understanding this, determining whether and how much whistleblower rewards, as well as protection laws, help in whistleblowers' decision-making is difficult.

Given all the arguments above, this Article analyzes the competing causes behind employees' whistleblowing intention by using a path analysis, which is a statistical method used to analyze the relative strengths of causal relationships among multiple variables. The author conducted a survey of U.S. employees by using a hypothetical scenario in which the participants were asked how they would behave if they found a violation of federal securities law in their workplace. Based on the answers from the participants, a path analysis was conducted.

The results revealed that, given the certain conditions assumed in the scenario, internal whistleblowing intention was influenced by two main factors: organizational commitment had a positive impact, and the fear of

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6. See, e.g., Matt A. Vega, *Beyond Incentives: Making Corporate Whistleblowing Moral in the New Era of Dodd-Frank Act "Bounty Hunting,"* 45 CONN. L. REV. 483 (2012) (arguing that financial incentives alone are insufficient to promote external whistleblowing); BANK OF ENG., FINANCIAL INCENTIVES FOR WHISTLEBLOWERS (2014), <https://www.fca.org.uk/publication/financial-incentives-for-whistleblowers.pdf> [<https://perma.cc/5YY6-9TAW>] (contending that financial incentives would not meaningfully increase the number of whistleblowing disclosures).

7. See, e.g., Sarah L. Reid & Serena B. David, *The Evolution of the SEC Whistleblower: From Sarbanes-Oxley to Dodd-Frank*, 129 BANKING L.J. 907 (2012) (arguing that whistleblowing will become more common because of new financial incentives); Philip G. Berger & Heemin Lee, *Do Corporate Whistleblower Laws Deter Accounting Fraud?* (2019), <https://ssrn.com/abstract=3059231> [<https://perma.cc/CF8L-PDYZ>] (finding that the Dodd-Frank whistleblowing laws have reduced accounting fraud).

retaliation had a negative impact. In comparison, external whistleblowing intention was also influenced by two main factors: moral intensity and reward-driven motivation, both of which had positive impacts. The effect sizes of these impacts on internal and external whistleblowing intentions fell within the small-to-medium range according to conventional statistical criteria. These results implied that both monetary and non-monetary motivations are crucial in whistleblowers' decisions.

This Article proceeds as follows. Part I explains whistleblower legislation and presents some facts about whistleblowers, and Part II provides the theoretical background of employees' decisions on whistleblowing and presents the hypotheses. Part III explains the research method, and Part IV presents the results of the path analysis. Part V provides the interpretations and policy implications of the results, and Part VI concludes the Article.

I. WHISTLEBLOWER LAWS AND FACTS

A. *International Perspectives*

In many jurisdictions, enforcement agencies can reveal only a small portion of corporate crimes by themselves, but employees can reveal a larger portion of crimes. For example, Dyck et al. found that, for corporate frauds, the SEC detected only 7% of a sample of 216 cases, but employees detected 17% of the cases.⁸ The fact that whistleblowers reveal a significant portion of corporate crimes means that they can be a threat to wrongdoers. Indeed, whistleblowers frequently suffer retaliation from wrongdoers. One survey in the United States reported that 22% of sample employees who reported misconduct experienced some form of retaliation.⁹ Another survey in the United Kingdom reported that 78% of sample whistleblowers experienced retaliation.¹⁰

Given these backgrounds, multilateral anti-corruption treaties require their member countries to provide appropriate protections for whistleblowers on corruption, which includes the protection of whistleblowers in the private sector. For example, under treaties such as the United Nations Convention Against Corruption and the Inter-American Convention Against Corruption,

8. Alexander Dyck, Adair Morse & Luigi Zingales, *Who Blows the Whistle on Corporate Fraud?*, 65 J. FIN. 2213, 2214 (2010).

9. ETHICS RES. CTR., 2011 NATIONAL BUSINESS ETHICS SURVEY 12 (2012).

10. ALL PARTY PARLIAMENTARY GRP. ON WHISTLEBLOWING, WHISTLEBLOWING: THE PERSONAL COST OF DOING THE RIGHT THING AND THE COST TO SOCIETY OF IGNORING IT 20 (2019), https://docs.wixstatic.com/ugd/88d04c_9754e54bc641443db902cd963687cb55.pdf [<https://perma.cc/WQ5M-P7SR>].

countries need to consider incorporating into their domestic legal systems protections for those who report corruption cases to authorities in good faith.¹¹ Moreover, international soft laws present guidelines on whistleblower protection. For instance, the Committee of Ministers of the Council of Europe adopted Recommendation CM/Rec(2014)7, which describes guiding principles for domestic legislation on protecting whistleblowers in both private and public sectors.¹² Furthermore, the OECD has set out international standards for whistleblower protection by adopting recommendations such as the Good Practice Guidance on Internal Controls, Ethics and Compliance in 2010¹³ and the Guidelines for Multinational Enterprises in 2011.¹⁴

At the domestic law level, many countries have enacted some form of whistleblower legislation over the past three decades. Among them, some countries, such as Hungary, Ireland, Israel, Japan, Korea, New Zealand, the Slovak Republic, South Africa, and the United Kingdom have comprehensive whistleblower protection laws that are applied to employees in both private and public sectors.¹⁵ Other countries have whistleblower laws that are applied to certain sectors or industries. A comprehensive whistleblower law tends to provide stronger protection for whistleblowers than a sectoral whistleblower law.¹⁶

B. U.S. Whistleblower Legislation

In the United States, federal and state laws provide protection for whistleblowers in the private and public sectors. As for corporate crimes in the private sector, there is no comprehensive federal law that is applied to whistleblowers in the all industries, but several statutes protect whistleblowers in certain industries. Examples of these federal statutes include the Sarbanes-Oxley Act of 2002 (SOX Act),¹⁷ the Food and Drug

11. United Nations Convention Against Corruption, art. 33, Oct. 31, 2003, 2349 U.N.T.S. 41; Inter-American Convention Against Corruption, art. III, Mar. 29, 1996, 35 I.L.M. 724.

12. COUNCIL OF EUR., PROTECTION OF WHISTLEBLOWERS: RECOMMENDATION CM/REC(2014)7 AND EXPLANATORY MEMORANDUM (2014), <https://rm.coe.int/16807096c7> [https://perma.cc/4Q3H-58YJ].

13. OECD, GOOD PRACTICE GUIDANCE ON INTERNAL CONTROLS, ETHICS, AND COMPLIANCE, ANNEX II (2010), <https://www.oecd.org/daf/anti-bribery/44884389.pdf> [https://perma.cc/5DLY-PC75].

14. OECD, OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES 23 (2011), <https://www.oecd.org/daf/inv/mne/48004323.pdf> [https://perma.cc/8QTA-WYFB].

15. See OECD, COMMITTING TO EFFECTIVE WHISTLEBLOWER PROTECTION 22 (2016), <https://www.oecd.org/corporate/committing-to-effective-whistleblower-protection-9789264252639-en.htm> [https://perma.cc/D8TT-ZXRH].

16. *Id.*

17. 18 U.S.C. § 1514A (2018).

Administration Food Safety Modernization Act,¹⁸ and environmental laws such as the Clean Water Act¹⁹ and the Toxic Substances Control Act.²⁰

In the case of whistleblowers on violations of federal securities laws, the SOX Act and the Dodd-Frank Act provide protection for whistleblowers. Both laws prohibit employers from retaliating against whistleblowers; prohibited acts include discharge, demotion, suspension, threats, and harassment.²¹ In the SOX Act, whistleblowers who suffered retaliation may receive back pay and special damages, such as emotional distress and reputational damages.²² The statute of limitations is 180 days after a whistleblower experienced or became aware of a retaliation.²³ In comparison, in the Dodd-Frank Act, whistleblowers who suffered retaliation may receive double back pay but no special damages.²⁴ The statute of limitations is 6 years after a whistleblower experienced a retaliation or 3 years after the whistleblower discovered or should have discovered the facts that support his or her claim, but no more than 10 years after the retaliation.²⁵

The SEC had interpreted that, under the Dodd-Frank Act, whistleblowers are protected even if they report possible violations only internally, such as to an internal compliance officer.²⁶ However, in 2018, the Supreme Court held in *Digital Realty Trust, Inc. v. Somers* that employees must report possible violations to the SEC to qualify for protection from retaliation under the Dodd-Frank Act.²⁷ Thus, whistleblower protection under the Dodd-Frank Act is not applied to whistleblowers who report only internally. Although whistleblowers who report only internally are still protected by other laws, such as the Sarbanes-Oxley Act of 2002, the level of protection is lower for whistleblowers who do not report violations to the SEC. In order to fix the gap in protection, in July 2019, the House of Representatives passed the Whistleblower Protection Reform Act of 2019, and in September 2019, a bipartisan group in the Senate introduced the Whistleblower Programs Improvement Act; both bills aim to provide more protections for internal reporting.²⁸

18. 21 U.S.C. § 399d (2018).

19. 33 U.S.C. § 1367 (2018).

20. 15 U.S.C. § 2622 (2018).

21. 15 U.S.C. § 78u-6 (2018); 18 U.S.C. § 1514A(a) (2018).

22. 18 U.S.C. § 1514A(c) (2018).

23. 18 U.S.C. § 1514A(b)(2)(D) (2018).

24. 15 U.S.C. § 78u-6(h)(1)(C) (2018).

25. 15 U.S.C. § 78u-6(h)(1)(B)(iii) (2018).

26. SEC, *supra* note 5, at 18.

27. 138 S. Ct. 767, 772–73 (2018).

28. Antuan Johnson, *Bill Would Bridge Digital Realty Whistleblower Protection Gap*, LAW 360 (Nov. 13, 2019), <https://www.law360.com/articles/1217307/bill-would-bridge-digital-realty-whistleblower-protection-gap> [<https://perma.cc/FGA8-3CXQ>].

In addition to the aforementioned protections, whistleblowers on violations of federal securities laws may also receive monetary rewards. In 2011, as explained in the Introduction, the SEC introduced the whistleblower reward program under the Dodd-Frank Act. Since the establishment of this program in 2011, the SEC has awarded over \$326 million to 59 whistleblowers.²⁹ Because the SEC receives numerous tips, the probability of receiving a reward based on a simple calculation is very low. For example, the SEC received has received over 28,000 whistleblower tips since 2011,³⁰ although the quality of information would significantly vary case by case, uncertainty will be always a part of the whistleblowing process.

Regarding the types of contributions by whistleblowers, approximately 67% of whistleblowers received rewards because their information enabled the SEC to commence an investigation; approximately 33% of whistleblowers received rewards because their information helped an ongoing investigation.³¹ As for the types of crimes reported by whistleblowers, offering fraud (20%), corporate disclosures and financials (19%), and manipulation (12%) were the most common in FY 2018.³² Approximately 83% of reward recipients who were current or former employees first reported potential violations internally or understood that their supervisor or compliance department knew of the issues before reporting to the SEC.³³

II. THEORETICAL BACKGROUND AND HYPOTHESES

This Part first elaborates on the notion of whistleblowing intention and then identifies its causes by looking at prior literature in economics and other fields. All of the causes are reframed in an economic analysis in which the benefits and costs to individuals are of significance. As premises for the estimation of the strengths of competing causes, hypotheses are made on whether each cause positively or negatively affects whistleblowing intention.

Figure 1 presents the model of the Article, showing the relationships between whistleblowing intention and the factors affecting it, and whether each factor has a positive or negative impact on whistleblowing intention. As explained below, whistleblowing intention consists of internal and external whistleblowing intentions, and these intentions are influenced by moral intensity, organizational commitment, fear of retaliation, and reward-driven motivation.

29. SEC, *supra* note 5, at 1.

30. *Id.* at 20.

31. *Id.* at 16.

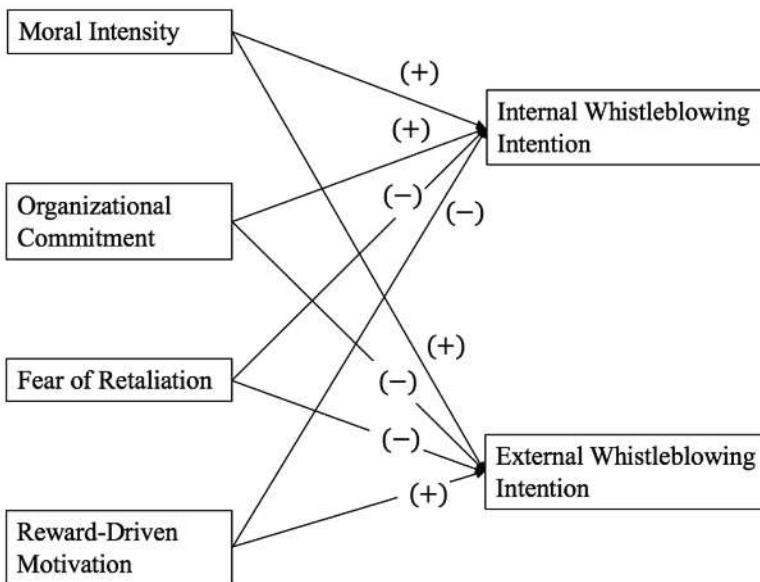
32. *Id.* at 21.

33. *Id.* at 17.

A. Whistleblowing Intention

Employees can generally report an offense by using two channels: internal and external channels. They can report the offense internally, such as to their company's compliance officer, can do so externally, such as to enforcement agencies, or can use both channels. The subjective probability that one would choose a certain channel depends on the benefits and costs of using this channel, which are different between internal and external channels. Thus, a distinction is necessary between one's intention to use the internal channel and the intention to use the external channel.³⁴ This Article defines internal whistleblowing intention as the strength of one's intention to report using the internal channel and external whistleblowing intention as the strength of one's intention to report using the external channel.

Figure 1: Research Framework



Note: The symbols (+) and (-) show a positive and negative relationship, respectively.

34. See, e.g., Terry Morehead Dworkin & Melissa S. Baucus, *Internal vs. External Whistleblowers: A Comparison of Whistleblowing Processes*, 17 J. BUS. ETHICS 1281, 1283 (1998) (explaining the different implications of internal and external whistleblowing); Heungsik Park & John Blenkinsopp, *Whistleblowing as Planned Behavior – A Survey of South Korean Police Officers*, 85 J. BUS. ETHICS 545, 548 (2008) (arguing that the behavior involved in internal and external whistleblowing is fundamentally distinct).

B. Moral Intensity

Numerous studies in psychology and business ethics have revealed that employees' whistleblowing intention is influenced by moral intensity,³⁵ which is one's evaluation of the degree of an act's immorality. Put differently, moral intensity measures to what extent an act is morally unacceptable. In the context of corporate crime, the immorality of an act is evaluated based on factors such as one's evaluation of the degree of harm caused by the crime and the evaluation of the degree to which society expects one to take actions to prevent the crime. Moral intensity is an issue-contingent concept, and thus, in the case of corporate crime, the level of moral intensity depends on conditions such as the types of crime and the victim of the crime.

In terms of economics, the notion of moral intensity is associated with the non-pecuniary benefits or costs of whistleblowing. When employees report a crime internally, externally or both, their reports can usually prevent or mitigate the social harm of the crime if their reports are appropriately addressed in a timely way. If one fails to prevent corporate crimes when they can do so, this would hurt social welfare. The individual may feel guilt and suffer disutility from the fact that the harm was not prevented or that the individual does not behave in a way society expects him or her to. (Equivalently, if one prevents corporate crimes when he or she can, this would maintain social welfare, and the individual may feel virtue and receive a positive utility.) Moreover, their disutility may increase if the harm becomes larger. Prior literature has studied this assumption.³⁶ Indeed, there is a study that conducted interviews with whistleblowers who filed U.S. federal qui tam lawsuits under the False Claims Act; the study revealed that these whistleblowers' primary motivation was associated with the feelings of guilt or virtue related to social welfare.³⁷

If the evaluated degree of immorality of a violation becomes larger, the

35. See, e.g., Thomas M. Jones, *Ethical Decision Making by Individuals in Organizations: An Issue-Contingent Model*, 16 ACAD. MGMT. REV. 366 (1991); Ming Singer, Sarah Mitchell & Julie Turner, *Consideration of Moral Intensity in Ethicality Judgments: Its Relationship with Whistle-blowing and Need-for-Cognition*, 17 J. BUS. ETHICS 527 (1998).

36. See, e.g., Louis Kaplow & Steven Shavell, *Moral Rules, the Moral Sentiments, and Behavior: Toward a Theory of an Optimal Moral System*, 115 J. POL. ECON. 494 (2007) (analyzing how moral sanctions and rewards should be used to influence individual behavior); Steven Shavell, *When Is Compliance with the Law Socially Desirable?*, 41 J. LEGAL STUD. 1 (2012) (evaluating the circumstances in which an individual would desire to adhere to the law in order to promote social welfare).

37. Aaron S. Kesselheim, David M. Studdert & Michelle M. Mello, *Whistle-Blowers' Experiences in Fraud Litigation Against Pharmaceutical Companies*, 362 NEW ENG. J. MED. 1832, 1834 (2010).

degree of disutility one suffers when not reporting would increase; thus, both internal and external whistleblowing would be more likely to occur as long as they are effective measures for preventing or mitigating harm. In the case of the United States, since the enactment of the Sarbanes-Oxley Act of 2002, U.S. corporations seem to have established effective internal reporting and compliance systems to a certain degree, and thus, the internal reporting channel, as well as the external one, can be trusted by employees, at least to some extent. Therefore, moral intensity should positively affect both internal and external whistleblowing intentions.

The arguments above yield the following hypothesis:

HYPOTHESIS 1: Moral intensity positively affects internal whistleblowing intention.

HYPOTHESIS 2: Moral intensity positively affects external whistleblowing intention.

C. *Organizational Commitment*

Another factor that prior literature has identified is organizational commitment, which is defined as the degree of one's loyalty to a company.³⁸ The reasons for employee loyalty tend to differ from person to person: some may expect economic benefits, such as promotions and bonuses, and others may conform to social norms that expect employees' loyalty to their company.

If the degree of one's loyalty increases, with all other conditions held constant, this individual would be more likely to report an offense internally. Keeping silent on the issue may damage the company's value and reputation. Although illegal profits from the crime may boost the company's value in the short term if the crime is not detected, having the company take actions to prevent the crime generally helps the company maintain its value and reputation in the long term.

By contrast, the impact of organizational commitment on external whistleblowing intention is theoretically difficult to predict. A possible explanation would be that if an individual's loyalty increases, this person would be less likely to report an offense externally while expecting the company to solve the issue by itself without an enforcement agency's

38. See, e.g., Marcia P. Miceli, Janet P. Near & Charles R. Schwenk, *Who Blows the Whistle and Why?*, 45 INDUS. & LAB. REL. REV. 113 (1991) (investigating the relationship between organizational commitment and actual whistleblowing behavior); Eileen Z. Taylor & Mary B. Curtis, *An Examination of the Layers of Workplace Influences in Ethical Judgments: Whistleblowing Likelihood and Perseverance in Public Accounting*, 93 J. BUS. ETHICS 21 (2010) (examining how organizational commitment influences the likelihood of whistleblowing using hypothetical scenarios).

intervention. Society may perceive employees' external reporting as a betrayal of their companies, and this type of social norm may influence employees' decisions. If this is not the case, organizational commitment may not be significantly associated with external whistleblowing intention.

These considerations lead to the following hypotheses:

HYPOTHESIS 3: Organizational commitment positively affects internal whistleblowing intention.

HYPOTHESIS 4: Organizational commitment negatively affects external whistleblowing intention.

D. Fear of Retaliation

The next important factor is the fear of retaliation, which discourages employees' willingness to blow the whistle.³⁹ Although employees are protected by whistleblower protection laws, in many jurisdictions, the degree of protection is far from sufficient, and employees still often suffer from various forms of retaliation, such as interference with promotions and dismissal.

One of the reasons for the insufficient protection of whistleblowers is that the applicable scope of whistleblower protection laws often differs between reporting channels. In the case of federal securities violations in the United States, as explained in Section I.B, the level of protection is currently lower for whistleblowers who report only internally than for those who report both internally and externally or only externally, although this gap is likely to be fixed.

Another reason for the insufficient protection of whistleblowers is that regardless of the reporting channels, there is a risk that a whistleblower's identity may not be adequately protected. The recipients of internal and external reports, such as companies' internal compliance departments and enforcement agencies, may disclose whistleblowers' identities, intentionally or not. Maintaining the confidentiality of whistleblowers is a difficult task, and if the identities of whistleblowers are not fully protected, there is always a risk of retaliation.

As these arguments show, employees face the risk of retaliation, although such a risk may differ between the two types of reporting channels. The risk of retaliation increases the costs employees suffer from

39. See, e.g., Jessica R. Mesmer-Magnus & Chockalingam Viswesvaran, *Whistleblowing in Organizations: An Examination of Correlates of Whistleblowing Intentions, Actions, and Retaliation*, 62 J. BUS. ETHICS 277, 281 (2005) (describing the relationship between whistleblowing and retaliation); Yoon Jik Cho & Hyun Jin Song, *Determinants of Whistleblowing Within Government Agencies*, 44 PUBLIC PERSONNEL MGMT. 450 (2015) (discussing the factors that influence whistleblowing behavior, including retaliation).

whistleblowing, and the evaluation of these costs changes from person to person. The stronger the fear of retaliation is, the less likely internal and external whistleblowing will occur.

From these arguments, the following hypotheses are proposed:

HYPOTHESIS 5: The fear of retaliation negatively affects internal whistleblowing intention.

HYPOTHESIS 6: The fear of retaliation negatively affects external whistleblowing intention.

E. Reward-Driven Motivation

Finally, reward-driven motivation, or the degree to which one values monetary rewards in external whistleblowing, has been identified as a factor affecting external whistleblowing intention.⁴⁰ Monetary rewards for external whistleblowing increase the benefits gained from external whistleblowing for employees, and to what extent this leads to an increase in whistleblowing intention varies from person to person. If the degree to which an individual values monetary rewards increases, this person would be more likely to report externally given the existence of monetary rewards.

By contrast, the effect of reward-driven motivation on internal whistleblowing intention has not yet been fully analyzed. A plausible explanation here would be that if the degree to which an individual values monetary reward increases, this person would be less likely to report internally, assuming that companies fail to offer monetary rewards for internal whistleblowing.⁴¹

These considerations yield the following hypotheses:

HYPOTHESIS 7: Reward-driven motivation negatively affects internal whistleblowing intention.

HYPOTHESIS 8: Reward-driven motivation positively affects external whistleblowing intention.

40. ETHICS RES. CTR., INSIDE THE MIND OF A WHISTLEBLOWER 16 (2012), <https://www.ethics.org/mdocs-posts/erc-nbes-inside-the-mind-of-a-whistleblower/> [<https://perma.cc/C3QN-VLWA>]; see also Yuval Feldman & Orly Lobel, *The Incentives Matrix: The Comparative Effectiveness of Rewards, Liabilities, Duties, and Protections for Reporting Illegality*, 88 TEX. L. REV. 1151 (2010) (discussing how monetary rewards affect whistleblowing behavior).

41. This does not mean that the monetary rewards for external whistleblowing discourages internal whistleblowing. The notion of reward-driven motivation merely captures to what extent money is important for an individual's reporting decision. Internal whistleblowing intention may be increased by the introduction of monetary rewards for external whistleblowing. Iwasaki, *supra* note 1.

III. METHOD

A. *Statistical Method*

The author used a path analysis; this is an extension of a multiple regression, which allows for multiple dependent variables—variables whose variations are to be explained. As explained in Part II, the model of this Article has two dependent variables (i.e., internal and external whistleblowing intentions), and thus, the use of a path analysis is appropriate and reasonable.⁴²

The purpose of a path analysis is not to prove causal relationships, but rather to estimate the relative strengths of causal relationships on the assumption that causal relationships are correctly specified in a model. Even if causal relationships are statistically significant and have certain strengths, this does not mean that these causal relationships have been proved. Rather, it means that the model has not been disproved and has been made tentatively more plausible.⁴³ This Article adds new evidence to the stock of empirical findings that previous studies have revealed.

In addition to the aforementioned two dependent variables, the model of this Article has four independent variables—variables that explain the variations of the dependent variables and are not affected by other variables in the model: moral intensity, organizational commitment, fear of retaliation, and reward-driven motivation.

The path analysis estimated the relative strengths of the causal relationships that are described in the diagram of Figure 1, which is the path diagram.

B. *Data*

The author conducted a questionnaire survey using Amazon Mechanical Turk (MTurk), a crowdsourcing online platform. Social scientists, such as psychologists and behavioral economists, have recently used this service to recruit participants for their studies. Several studies have confirmed that the data collected from MTurk are at least as reliable as those

42. Structural equation modeling (SEM) is also a possible approach that could be used. However, the measurement items for the independent variables in this Article have been used in prior literature; the interest of the Article lies in a structural model rather than a measurement model. Moreover, SEM needs a large sample size. For this reason, path analysis was chosen.

43. See Kenneth A. Bollen & Judea Pearl, *Eight Myths About Causality and Structural Equation Models*, in HANDBOOK OF CAUSAL ANALYSIS FOR SOCIAL RESEARCH 301 (Stephen L. Morgan ed., 2013) for similar arguments.

from traditional collection methods, such as recruiting college students.⁴⁴

The author recruited people located in the United States who worked or had worked as waged employees in organizations at the time of the survey, February 2016. The participants were paid 0.5 U.S. dollars for their participation. The collected sample was 200.

Table 1 summarizes the participants' demographic data: the proportion of female participants was 43%; the mean age was 35 years; the proportion of participants who had a bachelor's degree or higher was 58.5%; the proportion of participants who worked or had worked in publicly listed corporations was 74%; the proportion of participants whose household income was \$50,000 or higher was 46%; and 7.5% had personal experience with whistleblowing or knew people who had actually blown the whistle.

Table 1: Demographic Data

Gender	Women 43%, Men 57%
Mean Age	35 years
B.A. or Higher Education	58.5%
Working Experience in Public Companies	74%
Household Income \$50,000 or Higher	46%
Whistleblowing Experience (Own or Acquaintance's)	7.5%

C. Procedure

The participants were first asked to answer questions that measured their organizational commitment about the organization for which they were working or the last organization for which they had worked. Then, they were presented with a hypothetical scenario in which they were assumed to be an assistant manager in a general accounting department of a company selling information technology services.⁴⁵

44. See, e.g., Michael Buhrmester, Tracy Kwang & Samuel D. Gosling, *Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?*, 6 PERSP. ON PSYCHOL. SCI. 3 (2011).

45. For whistleblowing studies using a hypothetical scenario, see, for example, Ching-Pu Chen & Chih-Tsung Lai, *To Blow or Not to Blow the Whistle: The Effects of Potential Harm, Social Pressure and Organisational Commitment on Whistleblowing Intention and*

In the scenario, a supervisor had begun to manipulate the company's financial documents to overstate its profits. After reading the scenario, the participants were asked to answer questions about how they would think and behave in this situation. Their possible options were reporting the issue to a whistleblower hotline inside the company, reporting the issue to the SEC, keeping silent, leaving the company, and other options that they freely specified. If they chose to report the issue to the SEC, they were assumed to receive a monetary reward of \$10,000,000 with a probability of 10% from the SEC whistleblower reward program under the Dodd-Frank Act.

The probability of leaking of personal information and subsequent retaliation (interference with promotion) by the supervisor was assumed to be 50% in the case of internal reporting and 25% in the case of external reporting. The actual percentage of whistleblowers who experienced retaliation varies from 20% to 70%, depending on the data sources analyzed.⁴⁶ The probabilities assumed in the scenario fell within this range. Because reliable data on the risk of retaliation for each channel were not available, the author made assumptions based on the fact that the quality of internal reporting systems varies from company to company and that the risk of personal information leakage would be generally greater in internal reporting than in external reporting.⁴⁷ The scenario reduced the probability of retaliation for external whistleblowing to half of the probability for internal whistleblowing.

The Appendix of this Article includes the hypothetical scenario and questionnaire items. To build a realistic whistleblowing scenario, the author

Behaviour, 23 BUS. ETHICS: EUROPEAN REV. 327 (2014). They used a scenario of food safety violation to analyze the impacts of moral intensity and organizational commitment on whistleblowing intention. The present study uses the same structure as their scenario in the sense that a potential whistleblower discovers a supervisor's wrongdoing. However, the theoretical framework of the present study, including the variables and causal relationships it uses, is different from theirs.

46. See, e.g., GOV'T ACCOUNTABILITY PROJECT, WHY WHISTLEBLOWERS WAIT: RECOMMENDATIONS TO IMPROVE THE DODD-FRANK LAW'S SEC WHISTLEBLOWER AWARDS PROGRAM 10 (2016), https://www.whistleblower.org/wp-content/uploads/2018/12/GAP_Report_Why_Whistleblowers_Wait.pdf [<https://perma.cc/@rQA-9YY6>] (reporting that more than 20% of whistleblowers experienced retaliation); ALL PARTY PARLIAMENTARY GRP., *supra* note 10, at 20 (reporting that 78% of whistleblowers experienced retaliation).

47. Regarding internal reporting, the SOX Act requires public companies to establish an internal reporting system in which employees can submit confidential and anonymous reports regarding questionable accounting or auditing matters (15 U.S.C. § 78j-1(m) (2018)). However, the effectiveness of internal reporting systems significantly varies depending on the company; see, e.g., Stephen R. Stubben & Kyle T. Welch, *Evidence on the Use and Efficacy of Internal Whistleblowing Systems* (2019), <https://ssrn.com/abstract=3273589> [<https://perma.cc/9KZH-52M9>]. As for external reporting, the SEC has a statutory obligation to maintain whistleblowers' confidentiality under the SEC's whistleblower reward program (15 U.S.C. § 78u-6(h)(2) (2018)).

analyzed past SEC enforcement cases and made plausible settings by choosing the appropriate amount for the monetary award, the industry, job titles of the characters, stock prices, the degree of decline in stock prices, and so on.

D. Dependent Variables: Internal and External Whistleblowing Intentions

After the scenario, the participants were asked to indicate how likely they would be to choose the following actions: internal whistleblowing, external whistleblowing, keeping silent on the issue, leaving the company, and other actions that they freely specified. A 7-point Likert scale was used to rate their likelihood on each action from 1 (extremely unlikely) to 7 (extremely likely). Only the participants' answers regarding internal and external whistleblowing were used for the analysis.

E. Independent Variables

1. Moral Intensity

To have the participants evaluate the degree of immorality of the financial misstatement, the following information was described in the questionnaire:

As a result of the false financial disclosure, the company's share price will be inflated from \$50 to \$100, and the market value of the company is likely to increase from \$500 million to \$1 billion. Investors may buy at an inflated price and lose money if the truth comes out while they hold the stock. On the other hand, an investor who sells at an inflated price will make money that he would otherwise not make. It should be noted that after the revelation of a false financial disclosure, the company's profits might decrease, or the company could go bankrupt due to the scandal. In these cases, the employees of the company might receive fewer wages or, in the worst-case scenario, lose their jobs.

After reading this description, the participants were asked to rate their agreement with the following six items using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). These six items were made based on prior literature, as follows:⁴⁸

48. See Jones, *supra* note 35 (arguing that moral intensity has six components: magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect, which correspond to items (1) to (6), respectively). See Anusorn Singhapakdi, Scott J. Vitell & Kenneth L. Kraft, *Moral Intensity and Ethical Decision-*

- (1) The overall harm to society (if any) as a result of the supervisor's actions would be very small.
- (2) Most people would agree that the supervisor's actions are wrong.
- (3) There is a very small likelihood that the supervisor's actions will actually cause any harm to society.
- (4) The supervisor's actions will not cause any harm to society in the immediate future.
- (5) The harmful effects (if any) of the supervisor's actions will affect people who are close to you.
- (6) The supervisor's actions will harm very few people (if any).

Because items (1), (3), (4), and (6) are phrased so that a low score means a high degree of moral intensity, the responses to these items were reverse-scored to be consistent with the other items, in which a high score means a high degree of moral intensity. The reliability of these six items was tested by Cronbach's alpha. It assesses how consistently a set of items measures the same characteristic, and a score of more than 0.7 is acceptable. The Cronbach's alpha for the six items was 0.791, and thus, these items were acceptable for analysis. Given these steps, moral intensity was measured by the mean score of the six items.

2. Organizational Commitment

Unlike moral intensity, organizational commitment is not an issue-contingent concept, and thus, it was measured before the scenario was presented to the participants. At the beginning of the questionnaire, the participants were first asked to rate their agreement with the 15 items using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Some examples of these items are "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful" and "I really care about the fate of this organization."⁴⁹ These 15 items were adopted from prior literature and are included in the Appendix.⁵⁰ Some items of organizational commitment were reverse-scored

Making of Marketing Professionals, 36 J. BUS. RES. 245 (1996) (showing that the six components of moral intensity were correlated with the degree of ethical perception and intention); Joan M. McMahon & Robert J. Harvey, *An Analysis of the Factor Structure of Jones' Moral Intensity Construct*, 64 J. BUS. ETHICS 381 (2006) (analyzing the appropriateness of the six components of moral intensity).

49. Richard T. Mowday & Richard M. Steers, *The Measurement of Organizational Commitment*, 14 J. VOCATIONAL BEHAV. 224, 228 (1979).

50. *Id.*

so that a high score shows a high degree of organizational commitment, which is intuitive. Cronbach's alpha for the 15 items was 0.940, and thus, these items were acceptable for analysis. Given these steps, organizational commitment was measured by the mean score of the 15 items.

3. Fear of Retaliation

After the scenario, the participants were asked to rate the importance of the following four items in the decisions of whether to report internally and whether to report externally. They used a 7-point Likert scale ranging from 1 (very unimportant) to 7 (very important).

- (1) the likelihood of retaliation by interference with your career promotion.
- (2) the severity of retaliation by interference with your career promotion.
- (3) how quickly you will be able to find a job in another company as a backup plan for the risk of possible retaliation from the supervisor.
- (4) how much your work conditions, such as salary, will change in future jobs in other companies to which you might transfer when you suffer retaliation from the supervisor.

The Cronbach's alpha for the eight items (the above four items for each case of internal and external whistleblowing) was 0.912, and thus, these items were acceptable for analysis. The fear of retaliation was measured by the mean score of these eight items.

4. Reward-Driven Motivation

After the scenario, the participants were asked to rate the importance of the following two items in a decision whether to report externally. They used a 7-point Likert scale ranging from 1 (very unimportant) to 7 (very important).

- (1) the amount of an award you might receive.
- (2) the probability of receiving an award.

The reliability of these two items was tested by the Spearman-Brown coefficient, which is a more appropriate test for two items, and the coefficient was 0.945. Thus, the two items were acceptable for analysis. Reward-driven motivation was measured by the mean score of these two items.

IV. RESULTS

This Part reports the results of the path analysis. The author used Mplus Version 7.4, which is a statistical software.

A. Descriptive Statistics

Table 2 reports the means, standard deviations (SD), and correlations of the variables used in the path analysis. For internal and external whistleblowing intentions, the scale used was as follows: 1 (extremely unlikely), 2 (moderately unlikely), 3 (slightly unlikely), 4 (neither likely nor unlikely), 5 (slightly likely), 6 (moderately likely), and 7 (extremely likely). Because the mean score of internal whistleblowing intention was 4.065, the participants' average answer was that they were neither likely nor unlikely to report internally. By contrast, the mean score of external whistleblowing intention was 5.11, and thus, the participants' average answer was that they were slightly likely to report externally.

For moral intensity and organizational commitment, the scale used was as follows: 1 (strongly disagree), 2 (disagree), 3 (somewhat disagree), 4 (neither agree nor disagree), 5 (somewhat agree), 6 (agree), and 7 (strongly agree). As explained, each variable was measured by the mean score of multiple items; therefore, the potential scale of each variable ranged from 1 to 7. Because the mean scores of moral intensity and organizational commitment were 4.968 and 4.548, respectively, the participants' average moral intensity and organizational commitment were slightly higher than the midpoint of 4.

For the fear of retaliation and reward-driven motivation, the scale used was as follows: 1 (very unimportant), 2 (unimportant), 3 (somewhat unimportant), 4 (neither unimportant or important), 5 (somewhat important), 6 (important), and 7 (very important). As explained, each variable was measured by the mean score of multiple items; therefore, the potential scale of each variable ranged from 1 to 7. Because the mean scores of the fear of retaliation and reward-driven motivation were 5.3 and 4.985, respectively, the participants' average answers showed that these two factors were somewhat important in their reporting decision.

Table 3 reports the crosstabulation of internal and external whistleblowing intentions. The proportion of participants whose likelihood of internal whistleblowing was 5 (slightly likely) or higher was 51% (102/200), and 81% of those participants (83/102) answered that their likelihood of external whistleblowing was also 5 (slightly likely) or higher.

Table 2: Means, Standard Deviations, and Correlation Analysis (N = 200)

Variable	Mean	SD	1	2	3	4	5
1 IW	4.065	1.831					
2 EW	5.110	1.646	0.144				
3 MI	4.968	.978	0.043	0.302			
4 OC	4.548	1.285	0.215	0.123	0.029		
5 FR	5.300	1.141	-0.228	-0.046	0.042	0.101	
6 RM	4.985	1.737	-0.149	0.253	0.090	0.103	0.124

Note: IW = internal whistleblowing intention; EW = external whistleblowing intention; MI = moral intensity; OC = organizational commitment; FR = fear of retaliation; RM = reward-driven motivation.

Table 3: Crosstabulation of Internal and External Whistleblowing Intentions

		EW							Total
		1	2	3	4	5	6	7	
IW	1	6	0	1	2	3	4	10	26
	2	1	7	3	1	4	5	2	23
	3	0	0	3	2	8	8	6	27
	4	0	0	1	6	9	4	2	22
	5	0	2	5	4	13	15	16	55
	6	0	1	2	1	13	7	8	32
	7	1	2	1	0	5	5	1	15
Total		8	12	16	16	55	48	45	200

Note: See the note of Table 2 for the notation of the variables.

B. Path Analysis

Table 4 reports the unstandardized and standardized path coefficients, and Figure 2 reports the output path diagram with the standardized path coefficients. In Table 4, the unstandardized coefficients (B), standard errors (S.E.), and standardized coefficients (β) of the independent variables are reported for each dependent variable—internal and external whistleblowing intentions.⁵¹ Unstandardized coefficients show that if an independent variable increases by one point, how much a dependent variable changes. By

51. Since the model is saturated, fit indices are not reported.

contrast, standardized coefficients show that if an independent variable increases by one standard deviation, how much a dependent variable changes in standard deviation units. Standardized coefficients are used to compare the relative impacts of independent variables. Conventionally, the standardized coefficients of 0.1, 0.3, and 0.5 represent small, medium, and large effect sizes respectively: a medium effect size is “likely to be apparent to the naked eye of a careful observer”; a small effect size is “noticeably smaller yet not trivial”; a large effect size is “the same distance above medium as small is below it.”⁵² Moreover, Table 4 reports the R-squared values for each dependent variable. R-squared measures the proportion of variance of a dependent variable that is explained by independent variables. Conventionally, the R-squared values of 0.02, 0.13, and 0.26 represent small, medium, and large effect sizes, respectively.

For internal whistleblowing intention, the signs of the coefficients of the independent variables were consistent with theoretical predictions. The standardized coefficients indicate that organizational commitment and the fear of retaliation were the main causes behind internal whistleblowing intention. Both factors had small-to-medium effects, but one was a positive effect, and the other was a negative one. In the model, if organizational commitment increases by one standard deviation, internal whistleblowing intention increases by 0.253 standard deviation. By contrast, if the fear of retaliation increases by one standard deviation, internal whistleblowing intention decreases by 0.238 standard deviation. Reward-driven motivation had a coefficient of -0.151, and hence, it had a small impact. Moral intensity had a coefficient of 0.059, and thus, it had a very small impact. The impacts of the independent variables, except for moral intensity, were statistically significant. Because the R-squared value was 0.134, 13% of the variance of internal whistleblowing intention can be explained by the independent variables, which can be interpreted as a medium effect size. From the results above, hypotheses H3, H5, and H7 were not rejected, but H1 was rejected.

For external whistleblowing intention, except for organizational commitment, the signs of the coefficients of the independent variables were consistent with the theoretical predictions. The standardized coefficients indicate that moral intensity and reward-driven motivation were the main causes of external whistleblowing intention. Moral intensity had a coefficient of 0.283, and hence, it had a medium impact. Reward-driven motivation had a coefficient of 0.229, and thus, it had a small-to-medium effect. Organizational commitment and the fear of retaliation had coefficients of 0.101 and -0.096, respectively, both of which are small effect

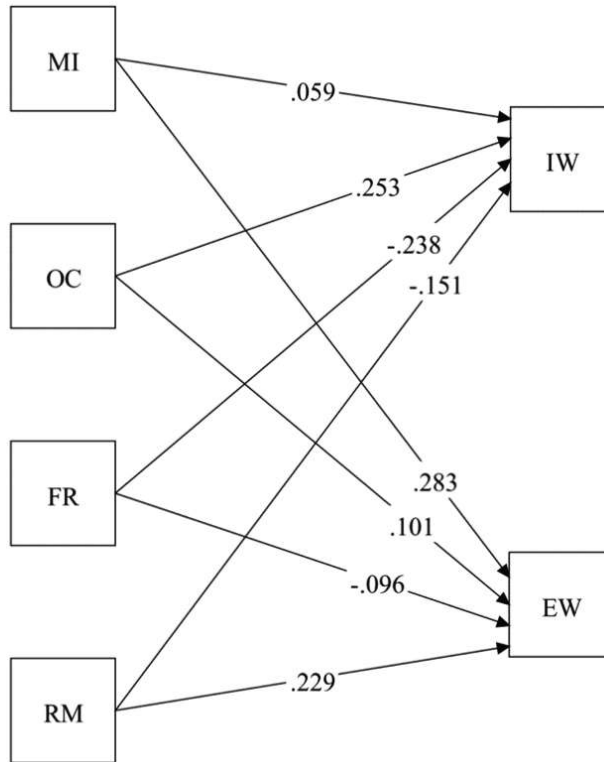
52. Jacob Cohen, *Statistical Power Analysis*, 1 CURRENT DIRECTIONS PSYCHOL. SCI. 98, 99 (1992).

sizes. The impacts of moral intensity and reward-driven motivation were statistically significant, but those of organizational commitment and the fear of retaliation were not. The R-squared value was 0.160, and thus 16% of the variance of external whistleblowing intention can be explained by the independent variables, which can be interpreted as a medium effect size. From the results above, hypotheses H2 and H8 were not rejected, but H4 and H6 were rejected.

Table 4: Unstandardized and Standardized Path Coefficients

	IW			EW		
	B	S.E.	β	B	S.E.	β
MI	0.111	0.141	0.059	0.476**	0.145	0.283
OC	0.361**	0.097	0.253	0.129	0.092	0.101
FR	-0.382**	0.106	-0.238	-0.139	0.102	-0.096
RM	-0.159*	0.073	-0.151	0.217**	0.069	0.229
R ²	0.134			0.160		

Note: B = unstandardized coefficient; β = standardized coefficient; *p < .05; **p < .01. See the note of Table 2 for the notation of the variables.

Figure 2: Output Path Diagram

Note: The estimated standardized coefficients are shown regardless of whether they are statistically significant. See the note of Table 2 for the notation of the variables.

V. DISCUSSION AND POLICY IMPLICATIONS

A. Summary and Interpretation of the Results

The results of the path analysis showed that organizational commitment and the fear of retaliation were the two main factors affecting internal whistleblowing intention. Organizational commitment had a positive effect, and the fear of retaliation had a negative effect. The sizes of both effects were between small and medium, according to conventional statistical criteria. The results also showed that moral intensity and reward-driven motivation were two main factors affecting external whistleblowing intention. Moral intensity had a positive and medium effect, and reward-

driven motivation had a positive and small-to-medium effect.

Although a majority of the hypotheses were not rejected, some hypotheses were rejected. Regarding internal whistleblowing intention, moral intensity had a very small effect on it, and the effect was not statistically significant. This may be because most participants thought that the internal reporting channel was not effective in solving the issue. If the individuals thought that the misstatement was morally unacceptable, as long as the company was likely to take actions to solve the issue with all other conditions held constant, this would lead to an increase in internal whistleblowing intention. Therefore, the negligible impact of moral intensity on internal whistleblowing intention may reflect the participants' perception of the ineffectiveness of the internal whistleblowing channel. Indeed, such a view is consistent with the fact that organizational commitment had a positive effect on internal whistleblowing intention. The participants may have perceived internal reporting as their job duty, not a solution to ethical issues.

As for external whistleblowing intention, contrary to the theoretical prediction, organizational commitment had a positive impact on it, and the effect was not statistically significant. This may be because people in the United States perceive external whistleblowing as a prosocial behavior, not a betrayal of organizations. Thus, the result may change in other societies that have different attitudes toward external whistleblowing. Moreover, the fear of retaliation did not have a statistically significant effect. This was probably affected by the fact that the probability of leaking of personal information and subsequent retaliation by the supervisor was assumed to be higher in the case of internal reporting (50%) than in the case of external reporting (25%). If this assumption were to change, the result would change.

One caveat in interpreting the results is that the research of this Article did not explore how monetary rewards affect employees' internal reporting. The effects of monetary rewards on internal reporting have been a hot issue in many jurisdictions because these rewards may discourage employees' internal reporting, thus undermining corporate governance. Although the results suggested a small and negative impact of reward-driven motivation on internal whistleblowing intention, this does not mean that the monetary rewards discouraged participants' internal whistleblowing intention; this simply means that if a participant valued monetary rewards to a greater extent than others, this characteristic tended to have a negative impact on the choice of internal whistleblowing under a situation in which monetary rewards were available. The results show nothing about the case where rewards were not available. To find the effects of monetary rewards on internal reporting, cases with and without monetary rewards should be compared.

Another caveat is that people's whistleblowing intention may differ from their actual whistleblowing behavior.⁵³ The results of this Article should be evaluated along with the data of actual whistleblowing cases. Because the data of whistleblowing cases is very limited, this type of study using hypothetical scenarios can complement the findings from actual cases.

B. Limitations of the Study

As explained in Section III.A, a path analysis was used to estimate the relative strengths of the causal relationships by assuming that the causal relationships were correctly specified in the model. Although a majority of the hypotheses were not rejected, this does not mean that the causal relationships were proved. Prior literature has accumulated evidence that supports and rejects the causal relationships focused on in this Article, and the results of this Article make some causal relationships more plausible and others less so. To establish a firm theory, further empirical studies are necessary.

It is well-known that the type of crime at issue affects people's whistleblowing behavior. Also, other factors, such as the expected amount of monetary rewards and the degree of retaliation, would affect the strengths of the causal relationships in whistleblowing. Therefore, future research should estimate the strengths of causal relationships in different situational settings and compare their results with the results from this Article. This type of comparison has not yet been fully made because of a lack of established benchmark cases. This Article provides such a benchmark for future research to evaluate the relative impacts of factors affecting whistleblowing under a whistleblower reward program. Because there were no good comparable estimates, the author used conventional statistical criteria for the effect sizes, which are convenient but rough standards.

C. Policy Implications

Regarding internal whistleblowing, U.S. companies need to establish effective internal governance systems if they wish to promote employees' internal reports. The two main factors affecting internal whistleblowing intention were organizational commitment and the fear of retaliation. Although organizational commitment had a positive impact, the fear of retaliation had a negative impact on internal whistleblowing intention. Because these effects had almost the same size, employees' willingness to report internally based on organizational commitment may be offset by the

53. Mesmer-Magnus & Viswesvaran, *supra* note 39, at 285–88.

fear of retaliation. Effective internal governance systems with strong protections for whistleblowers would lower the fear of retaliation. Moreover, if the recipients of internal reports, such as companies' internal compliance departments, are more likely to take timely actions to prevent crimes, employees' perceptions of the effectiveness of the internal channel would improve. If this is achieved, more employees would report internally based on their moral intensity, not just based on their organizational commitment. Since the enactment of the Sarbanes-Oxley Act of 2002, U.S. companies have tried to establish effective internal reporting and compliance systems, but the results of this Article appear to show that employees perceive the effectiveness of these systems as insufficient.

As for external whistleblowing, the results seem to show that the SEC has successfully won trust from workers in the United States. Moral intensity was one of the main factors affecting external whistleblowing intention. This may mean that people thought that the external channel was a possible solution to ethical issues. Since the establishment of the SEC whistleblower award program, the number of whistleblowing tips that the SEC receives has increased. To maintain trust from potential whistleblowers, the SEC should allocate enough resources to the claims review process so that whistleblowers are appropriately rewarded. Furthermore, the SEC should continue to take enforcement actions against companies and individuals who fail to comply with the anti-retaliation provisions of the Dodd-Frank Act. Although the fear of retaliation had a small and statistically insignificant effect on external whistleblowing intention, this may be because the risk of retaliation was assumed to be low in external whistleblowing.

This Article focused on the SEC whistleblower award program in the United States, but the policy implications above would be helpful for other jurisdictions that already have whistleblower reward programs or are contemplating the introduction of such programs. A common objection against whistleblower reward programs is that whistleblowing has been a taboo in many countries, and the idea of encouraging such behavior conflicts with social norms or the culture in those countries. However, social norms or the culture itself may be influenced by legal systems. If whistleblower reward programs are introduced and corporate crimes are successfully deterred by these programs, people may start to perceive whistleblowing as a prosocial behavior. The interaction between legal systems and social norms should be considered in the debate of whistleblower rewards.

VI. CONCLUSIONS

This Article has explored the relative impacts of the factors affecting employees' whistleblowing decisions. The SEC whistleblower award program, which has expanded recently, was chosen as the research subject. The author conducted a questionnaire survey of U.S. employees using a securities violation scenario. Based on the survey data, a path analysis was conducted to estimate the relative strength of the determinants of internal and external whistleblowing intentions. The results of the path analysis showed that given certain assumptions of the scenario, there were two main factors affecting internal whistleblowing intention: organizational commitment had a positive impact, and the fear of retaliation had a negative impact. In comparison, there were also two main factors affecting external whistleblowing intention: moral intensity and reward-driven motivation, both of which had positive impacts. The effect sizes of these impacts on internal and external whistleblowing intentions fell within the small-to-medium range according to conventional statistical criteria. This Article provided a simple framework and benchmark estimates for future research. Surveys using different scenarios will advance our understanding of whistleblowers' decisions, which will lead to better designs of whistleblower reward programs and protection laws.

APPENDIX

This Appendix includes the scenario and questionnaire items used in the survey. Some measurement items of whistleblowing intentions were not used in the analysis. Those items were used to check the participants' attention and for informational purposes.

*Measurement Items of Organizational Commitment*⁵⁴

Please indicate the strength of your agreement or disagreement with each of the following statements regarding the organization for which you are currently working or the last organization for which you worked. Please answer based on a 7-point scale that ranges from 1 (strongly disagree) to 7 (strongly agree).

- OC-1: I am willing to put in a great deal of effort beyond that normally expected in order to help this organization to be successful.
- OC-2: I talk up this organization to my friends as a great organization to work for.
- OC-3: I feel very little loyalty to this organization.
- OC-4: I would accept almost any type of job assignment in order to keep working for this organization.
- OC-5: I find that my values and the organization's values are very similar.
- OC-6: I am proud to tell others I am part of this organization.
- OC-7: I could just as well be working for a different organization as long as the type of work there was similar.
- OC-8: This organization really inspires the best in me in the way of job performance.
- OC-9: It would take very little change in my present circumstances to cause me to leave this organization.
- OC-10: I am extremely glad that I chose this organization to work for over others I was considering at the time.
- OC-11: There is not too much to be gained by sticking with this organization indefinitely.
- OC-12: Often I find it difficult to agree with this organization's policies on important matters relating to its employees.
- OC-13: I really care about the fate of this organization.
- OC-14: For me, this is the best of all possible organizations for which to

54. Richard T. Mowday & Richard M. Steers, *The Measurement of Organizational Commitment*, 14 J. VOCATIONAL BEHAV. 224, 228 (1979).

work.

OC-15: Deciding to work for this organization was a definite mistake on my part.

Whistleblowing Scenario

You are an assistant manager in the general accounting department of a company selling information technology services. The company has always complied with accounting standards. Mr. Smith is a new manager who is the head of the general accounting department. Most colleagues praise his leadership. However, Mr. Smith has begun to manipulate the company's financial documents to overstate its profits because the company's profits have dropped dramatically this year. Therefore, the manipulated financial documents do not reflect the actual profits.

When you raise concerns about this point with Mr. Smith, he answers that this manipulation is one-time-only, and the company will soon regain its profitability as a result of a new product it will soon announce. He argues that the firm's financial condition will become consistent with this year's financial statements in the next year or two. You have no personal feelings of like or dislike toward Mr. Smith and indeed view him as a competent manager.

Yet, you think that investors will be deceived by the company's misstatement and that the company's share price will be inflated as a result of the false financial disclosure. You have repeatedly raised these concerns with Mr. Smith, but he has not changed his thinking on this matter. Thus, you are thinking about the following options:

- (1) Bringing this matter to a whistleblower hotline inside the company [Note: Whistleblowing is the disclosure by organization members of illegal, immoral, or illegitimate practices under the control of their employers to persons or organizations that may be able to effect action. A whistleblower hotline inside the company is one of the company's departments. It accepts reports from whistleblowers in the company and is supposed to take any actions to solve problems reported by the whistleblowers.]
- (2) Bringing this matter to the U.S. Securities and Exchange Commission (SEC) whistleblower award program [Note: Whistleblowers can receive an award if they come forward with high-quality original information that leads to a Commission enforcement action in which over \$1,000,000 in sanctions is ordered. Whistleblower awards range from 10% to 30% of the money collected. The SEC is an agency of the U.S. federal government and is responsible for enforcing the federal securities laws. There is no guarantee that the SEC will bring an

enforcement action or, if it does, that an award will be obtained.]

- (3) Keeping silent on this matter
- (4) Leaving the company [Note: You are in no personal danger of liability as a result of what Mr. Smith has done if you keep silent on this matter.]
- (5) Other possible action(s)

If you blow the whistle to a whistleblower hotline inside the company or to the U.S. Securities and Exchange Commission (SEC) whistleblower award program, your personal information is supposed to be kept confidential. However, there is the possibility that, despite the laws that protect you, your personal information might be leaked, and Mr. Smith might retaliate by interfering with your career promotion. The probability of the leak of personal information and retaliation by Mr. Smith is 50% in the case where you blow the whistle to the whistleblower hotline inside the company and 25% in the case where you blow the whistle to the U.S. Securities and Exchange Commission (SEC) whistleblower award program.

If you blow the whistle to the U.S. Securities and Exchange Commission (SEC) whistleblower award program, there is the possibility that you could receive \$10 million. Whistleblowers can only receive an award if they come forward with high-quality original information, and you are thinking that the probability of receiving the award is 10% in this case. [Note: If you blow the whistle to a whistleblower hotline inside the company, you cannot receive any monetary payments.]

Measurement Items of Moral Intensity

As a result of the false financial disclosure, the company's share price will be inflated from \$50 to \$100, and the market value of the company is likely to increase from \$500 million to \$1 billion. Investors may buy at an inflated price and lose money if the truth comes out while they hold the stock. On the other hand, an investor who sells at an inflated price will make money that he would otherwise not make. It should be noted that after the revelation of a false financial disclosure, the company's profits might decrease or the company could go bankrupt due to the scandal. In these cases, the employees of the company might receive fewer wages or, in the worst-case scenario, lose their jobs.

Please indicate the strength of your agreement or disagreement with each of the following statements based on a 7-point scale that ranges from 1 (strongly disagree) to 7 (strongly agree).

MI-1: The overall harm to society (if any) as a result of Mr. Smith's actions would be very small.

MI-2: Most people would agree that Mr. Smith's actions are wrong.

MI-3: There is a very small likelihood that Mr. Smith's actions will actually cause any harm to society.

MI-4: Mr. Smith's actions will not cause any harm to society in the immediate future.

MI-5: The harmful effects (if any) of Mr. Smith's actions will affect people who are close to you.

MI-6: Mr. Smith's actions will harm very few people (if any).

Measurement Items of Whistleblowing Intentions

Please rate each of the actions mentioned below based on the following factors:

WI-1: You will blow the whistle to a hotline inside the company.

How likely is it that you will choose this action?

7-point scale that ranges from 1 (extremely unlikely) to 7 (extremely likely)

How appropriate would this action be?

7-point scale that ranges from 1 (extremely inappropriate) to 7 (extremely appropriate)

How effective would this action be?

7-point scale that ranges from 1 (extremely ineffective) to 7 (extremely effective)

WI-2: You will blow the whistle to the SEC whistleblower award program.

WI-3: You will keep silent.

WI-4: You will choose to leave the company.

WI-5: You will choose another action. Please specify that action.

[]

Please rank each of the above actions from best to worst.

[] You will blow the whistle to a hotline inside the company.

[] You will blow the whistle to the SEC whistleblower award program.

[] You will keep silent.

[] You will choose to leave the company.

[] You will choose another action.

Measurement Items of Fear of Retaliation and Reward-Driven Motivation

Based on this scenario, if you are thinking about blowing the whistle to a hotline inside the company, how important are each of the following considerations? (1: very unimportant to 7: very important)

EI-1: the likelihood of retaliation by interference with your career promotion.

EI-2: the severity of retaliation by interference with your career promotion.

EI-3: how quickly you will be able to find a job in another company as a backup plan for the risk of possible retaliation from Mr. Smith.

EI-4: how much your work conditions, such as salary, will change in future jobs in other companies to which you might transfer when you suffer retaliation from Mr. Smith.

Based on this scenario, if you are thinking about blowing the whistle to the U.S. Securities and Exchange Commission (SEC) whistleblower award program, how important are each of the following considerations? (1: very unimportant to 7: very important)

EE-1: the likelihood of retaliation by interference with your career promotion.

EE-2: the severity of retaliation by interference with your career promotion.

EE-3: how quickly you will be able to find a job in another company as a backup plan for the risk of possible retaliation from Mr. Smith.

EE-4: how much your work conditions, such as salary, will change in future jobs in other companies to which you might transfer when you suffer retaliation from Mr. Smith.

EE-5: the amount of an award you might receive.

EE-6: the probability of receiving an award.

Demographic Questions

DQ-1: What is your gender?

Woman

Man

DQ-2: What is your age? _____

DQ-3: What is the highest grade or year of school that you have completed?

Less than high school

High school diploma
Some college/No degree
Associate's Degree
Bachelor's Degree
Master's Degree
Doctoral Degree
Professional degree

DQ-4: Which employment status best describes you?

Employed for wages
Self-employed
Unemployed for more than 1 year
Unemployed for less than 1 year
Homemaker
Student
Retired
Unable to work

DQ-5: If you are currently employed for wages, then please describe your work.

Employee of a publicly listed corporation
Employee of a non-publicly listed corporation
Local government employee (e.g., city or county)
State government employee
Federal government employee
Other

DQ-6: If you are not currently an employee of a publicly listed corporation, then do you have any experience with working in a publicly listed corporation as an employee?

Yes
No

DQ-7: What is your total household income?

Less than \$30,000
\$30,000–\$39,999
\$40,000–\$49,999
\$50,000–\$59,999
\$60,000–\$69,999
\$70,000–\$79,999
\$80,000–\$89,999
\$90,000–\$99,999
\$100,000–\$149,999
\$150,000 or more

DQ-8: Which status best describes you?

Married

Divorced
Widowed
Separated
Never been married
Partner in an unmarried couple

DQ-9: Do you have children?

Yes
No

DQ-10: Have you or anyone who you know engaged in whistleblowing in the past—that is, reported illegal, immoral, or illegitimate practices under the control of employers to persons or organizations possibly able to effect corrective action?

Yes
No