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PERCEIVED PERSONAL COST AND WHISTLEBLOWING INTENTION: TESTING A MULTI-MODERATION MODEL

Tito IM. Rahman Hakim (tito.rhakim@trunojoyo.ac.id)
Prasetyono
Rifki Aprillah Saleh
Ravid Nur Wahid

Accounting Department, Faculty of Economics and Business, Universitas Trunojoyo Madura, Indonesia

A B S T R A C T

This study aims to investigate the relationship between accounting students' intentions to report wrongdoing and their perceptions of personal cost. Additionally, this article examines how the microsocial ethical environment, group cohesion, and peer-reporting type moderate the effect of perceived personal cost on whistleblowing intentions. The study employs data collected from 182 students at three state universities in Madura. Participants were selected using a convenient non-probability sampling method and were administered a questionnaire over the course of four months, from September 22, 2023, to December 22, 2023. The data were analyzed using SmartPLS version 4. The results indicate that perceived personal cost has a positive influence on whistleblowing intentions, supporting the prosocial behavior argument. Regarding the interaction effects, the findings reveal that the microsocial ethical environment fails to moderate the main effect (perceived personal cost on whistleblowing intentions), while group cohesion and peer-reporting type partially moderate the main effect. These findings extend the existing theory regarding whistleblowing and are valuable in assisting universities in formulating whistleblowing systems that are customized to accommodate students' fraud reporting.

Keywords: *group cohesion, microsocial ethical environment, peer-reporting type, perceived personal cost, student whistleblowing*

Penelitian ini bertujuan untuk menginvestigasi hubungan antara niat mahasiswa akuntansi untuk melaporkan tindakan pelanggaran dan persepsi mereka terhadap *personal cost*. Selain itu, artikel ini juga mengkaji bagaimana *microsocial ethical environment*, *group cohesion*, dan *peer-reporting type* memoderasi pengaruh *perceived personal cost* terhadap niat melakukan *whistleblowing*. Penelitian ini menggunakan data yang dikumpulkan dari 182 mahasiswa di tiga universitas negeri di Madura. Partisipan dipilih menggunakan metode convenient non-probability sampling dan diberikan kuesioner yang disebar selama 4 bulan mulai 22 September 2023 - 22 Desember 2023. Data dianalisis menggunakan SmartPLS versi 4. Hasil penelitian menunjukkan bahwa *perceived personal cost* memiliki pengaruh positif terhadap niat melakukan *whistleblowing*, mendukung argumen *prosocial behavior*. Terkait efek interaksi, temuan mengungkapkan bahwa *microsocial ethical environment* gagal memoderasi efek utama (*perceived personal cost* terhadap niat melakukan *whistleblowing*), sedangkan *group cohesion* dan *peer-reporting type* secara parsial memoderasi efek utama tersebut. Temuan ini memperluas teori yang ada mengenai *whistleblowing* dan bermanfaat dalam membantu universitas merumuskan sistem *whistleblowing* yang disesuaikan untuk mengakomodasi pelaporan kecurangan oleh mahasiswa.

Kata kunci: *group cohesion*, *microsocial ethical environment*, *peer-reporting type*, *perceived personal cost*, *whistleblowing* mahasiswa

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INTRODUCTION

In the realm of whistleblowing, personal cost and whistleblower safety have been extensively studied (Afe, Abodohoui, Mebounou & Karuranga, 2019; Alleyne, Haniffa & Hudaib, 2019; Anugerah, Abdillah & Anita, 2019; Ebaid, 2023). Personal cost is one of the key factors that deters whistleblowers from reporting (Ebaid, 2023; Latan, Chiappetta Jabbour & Lopes de Sousa Jabbour, 2021; Said, Alam, Mohamed & Rafidi, 2017; Park, Bjørkelo & Blenkinsopp, 2020; Setiany, Zamzami & Agustiningsih, 2020; Tudu, 2021). This

occurs as a result of the ethical act of whistleblowing, which is synonymous with dangers and adverse outcomes (Mapuasari, Rusliadi & Fitriana, 2023; Nurhidayat & Kusumasari, 2019; Valentine & Godkin, 2019). Thus, whistleblowers are the target of reprisals from both superiors and colleagues (Okafor, Adebisi, Opara & Okafor, 2020; Park et al., 2020; Puni & Anlesinya, 2017; Scheetz & Fogarty, 2019). Peltier-Rivest (2018) asserts that personal costs serve as the primary motivator for reporters to choose silence over reporting violations. Shonhadji & Maulidi (2021) noted that whistleblowers' intensity is totally muted because they fear reprisals and other unfavorable outcomes.

There have been earlier studies on the impact of personal cost on the intention to whistleblow (Alleyne, Charles-Soverall, Broome & Pierce, 2017; Latan et al., 2018, 2021; Park & Lewis, 2019). Nevertheless, the results of these studies have not yet produced definitive findings (Alleyne et al., 2019; Dhamija & Rai, 2018; Karatuna & Basol, 2018; Setiany et al., 2020). In order to investigate the impact of perceived personal cost on accounting students' intention to whistleblow, this study employs a number of moderating variables to interplay the direct impacts of the two variables. Using three different types of whistleblowing intentions (internal, external, and anonymous) and rationalization as a moderator, Latan et al. (2021) examined the impact of personal cost and breaches on Indonesian tax officials. Alleyne et al. (2019) discovered empirical evidence of the moderating effect of group cohesion and perceived personal cost of reporting on external whistleblowing intentions, as well as the negative effect of perceived personal cost of reporting on internal whistleblowing intentions. Latan et al. (2018) looked into how three factors—perceived moral intensity, team norms, and organizational support—modified the impact of multiple independent factors, including the personal cost of reporting, on both internal and external whistleblowing intentions. For South Korean external whistleblowers, Park & Lewis (2019) demonstrated the detrimental impact of perceived negative consequences on the desire to re-whistleblow. Chaudhary et al. (2019) used vignettes to evaluate situational, organizational, and individual aspects (cost of reporting) in order to investigate the internal and external whistleblowing intentions of lecturers in India.

The stream of research on whistleblowing intentions examines multiple variables simultaneously rather than focusing solely on personal costs. According to social information processing theory, whistleblowers should observe prior conduct and preserve social information in order to predict the environmental reaction to their whistleblowing (Salancik & Pfeffer, 1978; Zalesny & Ford, 1990). This approach describes the tendency of individuals to calculate how others will approve of or react to their actions, especially in the context of whistleblowing (Laili, Hakim & Prasetyono, 2022; Mayer, Nurmohamed, Treviño, Shapiro & Schminke, 2013). Whistleblowers also need a robust environment and mechanism to report fraud because, referring to Keil, Tiwana, Sainsbury & Sneha (2010), they will evaluate the benefit-to-cost differential before whistleblowing.

According to social information processing theory, environmental factors and reporting mechanisms, such as the microsocial ethical environment (Latan et al., 2018), group cohesion (Alleyne et al., 2019), and peer-reporting type (Hakami, Hakim & Muhammad, 2024), are expected to reduce the personal costs felt by whistleblowers. Latan, Chiappetta Jabbour & Lopes de Sousa Jabbour (2019b) added that environmental aspects and reporting mechanisms can be resources and opportunities that can strengthen whistleblowing intentions. Support from colleagues and the workplace to disclose fraud, together with a variety of reporting avenues, might lessen the harm whistleblowers experience (Smaili & Arroyo, 2019). The low number of whistleblowers in Indonesia served as the impetus for this study, as Peltier-Rivest (2018) argues that this does not imply that

fraud or other unlawful activity is not present in this nation. Peltier-Rivest (2018) highlighted that the limited number of whistleblowers reflects the substantial danger that individuals suffer if they whistleblow. In fact, the existence of whistleblowers is critical to combating corruption and other forms of fraud (Gibbs, 2020), particularly in Indonesia, where corruption is prevalent (Hakim, Subroto & Andayani, 2017; Latan, Chiappetta Jabbour & Lopes de Sousa Jabbour, 2019a). This study was conducted to provide answer to two related research questions. First, we investigate how perceived personal cost affects whistleblowing intentions among students in Madura universities. Second, we also examine how microsocial ethical environment, group cohesion and peer-reporting type moderate the aforementioned relationship.

This study refers to Latan et al. (2018) and Latan et al. (2019a), who tested several moderation factors at once, namely perceived organisational support, team norms, perceived moral intensity, ethical judgment, and emotions. This study is also motivated to test the moderating effect of several situational variables, referring to the statement from Cassematis & Wortley (2013), which states that the interaction between individual variables such as perceived personal cost and situational variables is better able to explain human behavior in making ethical decisions, especially whistleblowing. This study distinguishes itself from Latan et al. (2018) and Latan et al. (2019a) by using microsocial ethical environment, group cohesion, and peer-reporting type as moderators, rather than focusing on individual or personal variables, in order to align with Cassematis & Wortley (2013) assertion that these three moderators represent situational variables. By modeling the whistleblower process in overcoming fear of reprisal utilizing a variety of reporting options and colleague support, researchers attempt to fill up the gaps and discrepancies in earlier studies. Latan et al. (2019a) and Latan et al. (2021) investigated the direct effects on three different categories of whistleblowing intentions: internal, external, and anonymous. By employing Park, Blenkinsopp, Oktem & Omurgonulsen (2008) whistleblowing typology as a guide, this study is the first to construct these variables and assess the six categories of whistleblowing: internal, external, anonymous, identifiable, formal, and informal. Researchers employ six types of whistleblowing typologies to present a broader comprehension of the whistleblowing options available and opted for by whistleblowers in Indonesia.

The empirical evidence confirms that students continue to whistleblow due to their prosocial and selfless behavior, despite their fear of reprisals or personal consequences. The moderating effect test results also demonstrate that group cohesion and peer reporting type are partially supported, but not the microsocial ethical environment. This study makes a number of contributions. To start, it is one of the few that examines every whistleblowing typology put forward by Park et al. (2008). Second, this study employs three moderating variables to lessen the inconsistency of prior studies, and it discovers that peer support alongside appropriate whistleblowing policies can boost students' intentions to whistleblow. Despite the inability of all moderating variables to significantly moderate, this study reinforces the notion that prospective whistleblowers take situational aspects into account before disclosing information. These findings lend credence to the interplay between personal and situational aspects in the whistleblowing intentions model. Finally, the results of this study can be used as a guide by higher education management to develop student-friendly whistleblowing policies and reporting channels.

The rest of this paper is structured as follows. Section 2, the literature review and hypothesis development, reviews the grand theory used to explain the theoretical foundation of the research model and the logical thinking behind the relationship among variables. Section 3 covers the research methods, including the sample,

variable measurement, and research stages. Results and its discussion are described in Section 4. Finally, Section 5 presents the brief result of this study, its implication, limitations, and suggestions for future research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Whistleblowing Intentions among Accounting Students in Indonesia

In the early 1960s, whistleblowing was regarded as a prosocial behavior referring to the research Gouldner (1960). The previous study became the initial formulation of the prosocial behavior notion. This notion, which was later codified by Dozier & Miceli (1985), describes altruistic action to assist others while also considering the implications that are already in place (Brief & Motowidlo, 1986). Whistleblowing is the act of revealing deception to those in positions of power (Near & Miceli, 1985). Whistleblowing has emerged as an effective internal control tool for combating fraud (Dangi, Nawawi & Salin, 2020; Fredin, Venkatesh, Riley & Eldridge, 2019). Nevertheless, many concerns remain, particularly about the connection between fear of reprisal and whistleblowing and how this deters people from coming forward. Thus, the motivation behind this study is to revisit this subject within the Indonesian setting.

Indonesia was chosen as the country of choice for research because of the proliferation of whistleblowing research in developed countries and the limited research in developing countries (Brody, Gupta & White, 2020). Whistleblowing research in Indonesia will be fruitful for several reasons. First, Indonesia is among the top five countries for fraud cases, according to data from the Association of Certified Fraud Examiners (ACFE) in 2015 and 2016 (Latan et al., 2018; Latan et al., 2019a). Second, despite Indonesia's Law No. 13 of 2006, which governs whistleblowing, Latan et al. (2021) noted that whistleblower protection is still somewhat limited. Indonesia is therefore the most appropriate setting to investigate the topic of personal cost and whistleblowing, because according to Latan et al. (2021), retaliation in Indonesia remains high relative to wrongdoing.

The subjects of whistleblowing research are also quite diverse, ranging from employees in IT companies (Gupta & Bhal, 2021a), auditors (Boo, Ng & Shankar, 2021; Latan et al., 2018; Latan et al., 2019a; Latan et al., 2019b), tax officers (Hakim et al., 2017; Latan et al., 2021), banking sector employees (Akhtar, Javed, Syed, Aslam & Hussain, 2021), and accountants (Alleyne et al., 2017; Alleyne, Hudaib & Haniffa, 2018). The current study chose accounting students as research respondents. Although these respondents have been the focus of several earlier studies (Brody et al., 2020; Brody, Gupta & Turner, 2021; Hakami et al., 2024; Laili et al., 2022), there is still much to learn about student whistleblowing. Whistleblowers were first recognized through many financial scandals in large companies such as WorldCom, Enron, Satyam, and Ranbaxy (Gupta & Bhal, 2021b), which caused a crisis and prompted a revolution in internal control (Aslam, Akhtar, Akhtar, Asrar-ul-Haq, Iqbal & Usman, 2023). This is an accounting fraud that has engulfed the accounting and auditing fields. Therefore, researchers chose the antecedent of accountants and auditors, namely students studying in the accounting department.

Several prior studies on accounting student fraud in education (Affandi, Hakim & Prasetyono, 2022; Bujaki, Lento & Sayed, 2019; Gautama, Hakim & Muhammad, 2023) have found a tendency for accounting students to commit academic cheating. It is typical for accountants to be tempted to commit misconduct at work due to pressure from superiors or personal preferences. The process of ethical decision-making by accounting students is thus an intriguing subject to investigate. Brody et al. (2021) added that comprehending the developmental trajectory of accounting students can offer a valuable understanding of why certain individuals choose to come forward with allegations at various stages of their professional lives. In the beginning, it was

explained that research related to whistleblowing mostly uses the theory of prosocial behavior, but (Gundlach, Douglas & Martinko (2003) argued that this theory is unable to explain the complex whistleblowing process, so the current study uses social information processing theory to explain the accounting student whistleblowing model.

Social Information Processing Theory

Salancik & Pfeffer (1978) initially proposed social information processing theory, which describes how individuals adapt to their social contexts. According to Salancik & Pfeffer (1978), using this approach, one can examine individual behavior through the information and social environment in which the individual adapts. Zalesny & Ford (1990) support the idea that a person's behavior is a result of their social surroundings rather than something that is predetermined. Furthermore, Zalesny & Ford (1990) elaborated on the process of how the social environment provides indications regarding what behavior is accepted and what norms apply. These elements create salient and credible information for people (Salancik & Pfeffer, 1978). This theory has also been adopted in the domain of ethical decision-making, such as whistleblowing (Aslam et al., 2023; Gundlach et al., 2003; Laili et al., 2022; Mayer et al., 2013).

Using their causal explanations, assessments of responsibility, feelings, and cost-benefit calculations, this method forecasts whistleblowers' decisions to disclose misconduct (Gundlach et al., 2003). Since whistleblowing is a moral conundrum in Indonesia (Nurhidayat & Kusumasari, 2019), employees would go to their social environment for advice when faced with ambiguity about acceptable and suitable conduct norms(Mayer et al., 2013). Social cues play a vital role in determining whether or not potential whistleblowers will blow the whistle (Aslam et al., 2023). They will report fraud if they receive positive social cues about whistleblowing and vice versa. (Laili et al., 2022) clarified that students have strong ties with their classmates, so that social and environmental aspects are the main references for whether they will blow the whistle or not. Therefore, before choosing to engage in whistleblowing, accounting students who fear reprisals will take into account safe reporting procedures, environmental support, and social norms. Thus, social information processing offers an adequate theoretical foundation for elucidating the whistleblower model in this research.

Perceived Personal Cost and Whistle-blowing Intentions

Perceived personal cost refers to the prospect of retaliation from the organization or colleagues due to whistleblowing as perceived by the potential whistleblower (Near & Miceli, 1985). Personal cost is very identical to retaliation because both address negative actions taken by the wrongdoer against the whistleblower (Puni & Anlesinya, 2017). Retaliation can take numerous forms, ranging from minor workplace harassment to much more catastrophic consequences (Yakubu & Dikwa, 2020). Given the significant danger of retaliation, not everyone has the fortitude to blow the whistle (Hechanova & Manaois, 2020). People often hesitate to report misconduct out of fear of retaliation (Said et al., 2017; Tudu, 2021). McIntosh, Higgs, Turner, Partlow, Steele, MacDougall, Connelly & Mumford (2019) suggest that retaliation can cause a large degree of emotional discomfort. It makes sense to avoid whistleblowing from a cost-benefit perspective because it carries a high risk (Gundlach et al., 2003; Keil et al., 2010). Accordingly, it may be understandable that potential whistleblowers who are afraid of retaliation would be quite reluctant to come forward (Shonhadji & Maulidi, 2021). Prior studies also corroborate how perceived personal cost negatively affects whistleblowing intention (Alleyne et al., 2019; Chaudhary et al., 2019; Latan et al., 2018; Latan et al., 2021; Park & Lewis, 2019). Therefore, regardless of the type of channel (internal, external, identified, anonymous, formal, or informal), students with low power are highly unlikely to

report a high-risk situation. In so doing, the first hypothesis is:

H1: Perceived personal cost affects whistleblowing intentions (internal, external, identified, anonymous, formal, informal).

Moderating Effect of Microsocial Ethical Environment on Perceived Personal Cost and Whistleblowing Intentions

Social information processing theory provides a theoretical background that social signals from whistleblowers' surroundings become a compass that orchestrates their action (Salancik & Pfeffer, 1978), whether to whistleblow or not. Latan et al. (2021) supports the earlier claim that human interactions influence whistleblowers' decisions to disclose misconduct. The microsocial ethical environment describes the ethical atmosphere in a setting and explains the microevents that occur between persons and their surroundings that result in behavioral changes (Husser, Andre & Lespiet-Najib, 2019). Indirectly, the microsocial ethical environment will create certain norms that pertain to a microenvironment. Latan et al. (2018) use the term team norms to describe how norm agreements apply to a group. A consensus on this standard will serve as a guide for potential whistleblowers to ascertain whether or not the group will approve the planned disclosure (Zalesny & Ford, 1990). A person's intention to engage in whistleblowing will be diminished if the microenvironment does not support it (Aslam et al., 2023). Laili et al. (2022) discovered that a whistleblowing-friendly microenvironment encourages individuals to engage in whistleblowing, but when this variable interacts with other situational variables, the individual's whistleblowing intention is diminished. People will therefore be deterred from acting ethically if they perceive that whistleblowing would have a large personal cost; however, this risk may be increased or decreased based on the environment's support. From the foregoing discussion, the following hypothesis can be derived:

H2: Microsocial ethical environment moderates the relationship between perceived personal cost and whistleblowing intentions (internal, external, identified, anonymous, formal, informal).

Moderating Effect of Group Cohesion on Perceived Personal Cost and Whistleblowing Intentions

Perceived personal cost is the most considered indicator before whistleblowing (Shonhadji & Maulidi, 2021). This is due to the dilemma and risk that the whistleblower faces if he chooses to reveal the fraud he is aware of (Puni & Anlesinya, 2017; Said et al., 2017; Scheetz & Fogarty, 2019). Thus, whistleblower protection is critical in averting retaliation (Palumbo & Manna, 2019). Retaliation may have an adverse effect on the employee morale, but protection from retaliation can encourage employees to be more attune whistleblowing (Rajeevan, 2020). One of the mechanism to reduce the risk and to add perceived protection is support from the peers and collegue (Gundlach et al., 2003; Mapuasari et al., 2023). This support relates to the tendency of group members to create strong relationships with one another, also known as group cohesion (Carron, 1982). Conversely, when the cohesiveness is too high, people often believe that there is a separation of responsibilities, which leads to collective mistakes being viewed as individual mistakes (Alleyne et al., 2019). As a consequence, individuals tend to conceal the fraud that occurs. Especially for students who are considered to have strong connections so that they have a need to maintain group stability in the class. This is confirmed by Alleyne et al. (2019) and Latan et al. (2018), who discovered that in conditions of high group cohesion and norms, auditors will tend not to report fraud that they know about. As such, the third hypothesis proposed is:

H3: Group cohesion moderates the relationship between perceived personal cost and whistleblowing intentions (internal, external, identified, anonymous, formal, informal).

Moderating Effect of Peer-Reporting Type on Perceived Personal Cost and Whistleblowing Intentions

Gundlach et al. (2003) highlighted that different reporting channels can motivate whistleblowers to disclose fraud by lowering the chance of retaliation and perceived risk. In the same sense, certain policies can be applied to reduce perceived personal costs and increase individual whistleblowing intentions (Hakami et al., 2024). In the context of student whistleblowing, they must expose fraud committed by their peers. This is extremely challenging and perplexing, as students must report people who are emotionally close to them (Loyens, 2013). (Loyens, 2013) proposed a peer-reporting type that is thought to be capable of lowering the personal costs borne by potential whistleblowers. Grid-group culture theory, which outlines four categories of reporting policies—Fatalism, Hierarchy, Individualism, and Egalitarianism—is the foundation for the idea of peer-reporting type (Hakami et al., 2024). It is anticipated that this method will encourage potential whistleblowers to act with greater courage since it provides them with a selection of policies that are better suited to support their moral goals. The concept of peer-reporting type is also in line with social information processing theory, because individuals will be confronted with a choice of reporting policy paths that they consider safer. Safe in the sense of being considered more acceptable by their environment and society (Mayer et al., 2013). (Hakami et al., 2024) corroborate the previous statement by providing empirical evidence that students in Madura prefer hierarchical policies to report misconduct. Hence, the last hypothesis:

H4: Peer-reporting type moderate the relationship between perceived personal cost and whistleblowing intentions (internal, external, identified, anonymous, formal, informal).

RESEARCH METHODS

This quantitative study uses group cohesion, peer-reporting type, and microsocial ethical environment as moderating variables to investigate the

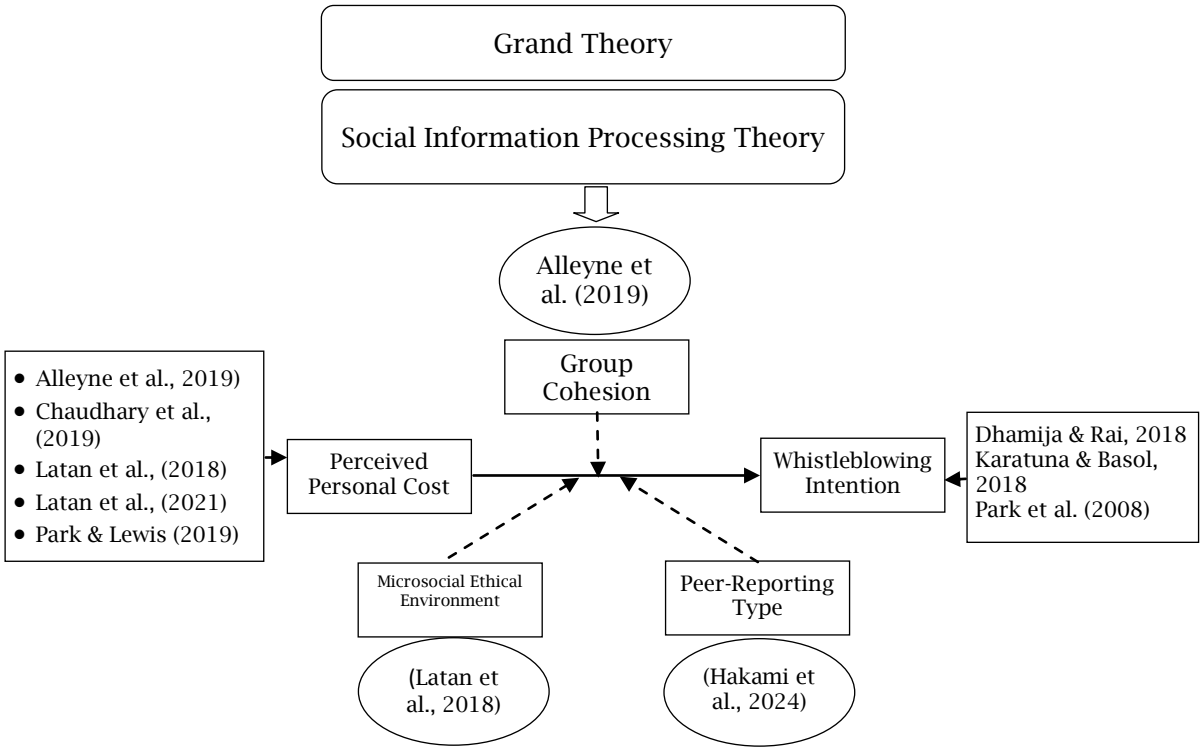


Figure 1.
Conceptual Framework

impact of perceived personal cost on students' intentions to whistleblow in Madura universities. Data for this study is gathered from selected respondents using survey instruments. The association between variables and theories is demonstrated in Figure 1 .

Sample and Procedures

The sample examined in the current study is comprised of students. Students were chosen based on Affandi et al. (2022) and Gautama et al. (2023), who indicated that they are frequently implicated in academic fraud, which can persist after entering the workforce. Motivated by a number of factors, this study focuses on investigating how students at Madura's state universities perceive whistleblowing. First, Madura is one of the Indonesian islands where the people have a rigid worldview (Budiyanti, Siahaan & Nugroho, 2022), making it inhospitable to whistleblowers. Second, people find it challenging to come forward because of Madura's relatively high-power distance culture (Hofstede, 1985). Third, state universities were selected due to the fact that the majority of the funds received by universities in Madura are from the state budget. Consequently, any misconduct that occurs has the potential to negatively impact state finances.

Respondents in this study provide valuable insights into the decision-making process of students who are about to enter the workforce in conducting whistleblowing when faced with fraud (Brody et al., 2021). The researchers distributed questionnaires to the target population, namely accounting students at three different state universities in Madura: (1) Trunojoyo Madura University; (2) Madura State Polytechnic; and (3) State Islamic University of Madura. The dissemination of the questionnaire took place over the course of four months, from September 22, 2023, to December 22, 2023. A total of 182 responses were obtained, which were declared representative of the population and were suitable for use as a basis for data analysis. The G*Power application concluded that the minimum total sample required in this study was 103. This application is considered relevant because, according to Sofyani (2023), many articles from reputable journals use it to calculate the minimum number of research samples.

Table 1.
Respondent Profiles

No	Demographic Variable		Frequency	Percentage
1	Gender	Male	58	31.9%
		Female	124	68.1%
2	Semester	1-2	2	1.1%
		3-4	38	20.9%
		5-6	16	8.8%
		7-8	126	69.2%
3	GPA	<2.50	1	0.5%
		2.51-3.00	4	2.2%
		3.01-3.50	43	23.6%
		>3.51	134	73.6%
4	University	Trunojoyo Madura University	123	67.6%
		Madura State Polytechnic	5	2.7%
		State Islamic University of Madura	54	29.7%
5	Age	18-19 years	24	13.2%
		20-21 years	127	69.8%
		22-23 years	31	17%
6	Study Program	Accounting	67	36.8%
		Management	52	28.6%
		Sharia Economics	25	13.7%
		Sharia Banking	28	15.4%
		Others	10	5.5%

Table 1 exhibits demographic data for the 182 respondents in this study. Our respondents were dominated by women, 124 of whom made up 68.1%. The rest were male respondents—31.9%, or 58 people. Moreover, the majority of respondents came from semesters 7–8, 126 people, and most had a GPA above 3.51. More than 50% of respondents, or 67.6%, or 123, were students at Trunojoyo Madura University. In addition, the age range was as follows: (1) 24 people aged 18-19 years; (2) 127 people aged 20-21 years; and the remaining 31 people, or 17%, were aged 22-23 years. There were 4 main study programs in which respondents were studying, namely accounting, management, sharia economics, and sharia banking, while the rest of the respondents were studying in other study programs.

Measures

The instrument in this study consists of 2 parts, namely demographic information of respondents and perceptions of students at state universities in Madura regarding their intention to whistleblow, referring to several different aspects (perceived personal cost, microsocial ethical environment, group cohesion, and peer-reporting type). This study incorporated an instrument from past studies to capture student intentions to whistleblow. The instrument from Cho & Song (2015) and Hakami et al. (2024), consisting of 3 question items, was referred to measure perceived personal cost. This instrument asks about the concerns and bad repercussions felt by children if they whistleblow. To quantify whistleblowing intention, the researcher utilized an instrument established by Park et al. (2008) that comprises 6 categories of whistleblowing typologies, including internal, external, identifiable, anonymous, formal, and informal.

The three moderating variables also follow the same mechanism, namely referring to the prior studies instruments: (1) the microsocial ethical environment is measured using the instrument from Husser et al. (2019) and Laili et al. (2022), which consists of 8 statement items; (2) group cohesion measurement refers to the Alleyne et al. (2019) instrument, which contains 5 items; and (3) the peer-reporting type instrument contains 16 statement items taken from 4 different dimensions, namely Fatalism, Hierarchy, Individualism, and Egalitarianism, and refers to the study of Hakami et al. (2024). A 7-point Likert scale is used for all variables in this study, with 1 denoting very unlikely and 7 denoting very likely. The operational definitions of the variables and instruments used in this investigation are explained in greater detail in Appendix 1.

Data Analysis

Researchers used SmartPLS 4.0 as an analysis tool to test the model and hypothesis in this study. SmartPLS 4.0 is a popular covariance-based SEM analysis tool, particularly for testing complex research models simultaneously (Ali, Rasoolimanesh, Sarstedt, Ringle & Ryu, 2018). SmartPLS 4.0 is a suitable fit for this study because it includes three distinct moderation variables. Researchers performed a data bias test prior to delving deeper into the SmartPLS 4.0 data analysis technique procedure. This test is carried out to ensure that the data to be tested in this study is not biased so that the results obtained can be accounted for and are not misleading. Harman's One-Factor Test is used to conduct the Common Method Variance (CMV) bias test.

Based on the test results, Harman's One-Factor Test had a variance score of 19.05%. The data in this study are free of bias and error because the variance value is less than 50% (Fuller, Simmering, Atinc, Atinc & Babin, 2016). Furthermore, the steps for testing the hypothesis in this study refer to the stages in Hair, Risher, Sarstedt & Ringle (2019). First, an assessment of the measurement model assessment was carried out. All of the study's constructs are reflective; therefore, in order to determine whether the outer model is feasible, the following guidelines must be taken into account: (1) indicator loadings ≥ 0.708; (2) internal consistency reliability is between 0.70-0.90, which refers to the composite reliability value; (3)

convergent validity is declared passed if the AVE value is ≥ 0.50; and (4) HTMT value < 0.85 or HTMT < 0.90 for constructs that are conceptually similar, so that the model can be said to pass the discriminant validity test. Second, a test is conducted on the structural model seen from 3 things, namely (1) collinearity, which can be seen by the VIF value < 3; (2) R2 value; and (3) Q2 value. Third, an interpretation of the hypothesis test results is conducted by examining the p-value, which needs to be less than 0.5 in order to establish whether the hypothesis in this study is supported or rejected.

ANALYSIS AND DISCUSSION

Results

The first stage is to evaluate the outer model or measurement model. Utilizing SmartPLS 4.0, Tables 2 and 3 exhibit the results of validity and reliability testing. Tables 2 and 3 reveal the outer model to see the correlation between each construct and its indicator, as well as confirm the validity and reliability of each indicator. The indicator loadings have a value greater than 0.708, which means it provides satisfactory reliability as it explains more than 50% of the indicator's variance. The value of composite reliability is also above 0.70, so every indicator has adequate internal consistency reliability. The convergent validity test in Table 2 and the discriminant validity test in Table 3 exhibit that AVE is greater than 0.50 and the HTMT value is less than 0.85 or 0.90 for conceptually similar constructs. It can be concluded that every indicator has passed a validity test. Our measurement model is fit to Hair et al. (2019), allowing us to interpret structural or inner models. The

Table 2.
Convergent Validity and Reliability Test Results

Variables & Items		Loading Factor	Composite Reliability	AVE
Perceived Personal Cost	PPC1	0.749	0.864	0.681
	PPC2	0.853		
	PPC3	0.868		
Microsocial Ethical Environment	MEE1	0.783	0.823	0.609
	MEE4	0.834		
	MEE5	0.720		
Group Cohesion	GC1	0.709	0.858	0.603
	GC2	0.750		
	GC3	0.868		
	GC4	0.771		
Peer-Reporting Type	PRT(E)1	0.855	0.897	0.635
	PRT(E)2	0.794		
	PRT(E)3	0.819		
	PRT(H)1	0.732		
	PRT(H)3	0.780		
Whistleblowing Intentions				
Internal	WBI(I)1	0.728	0.844	0.645
	WBI(I)2	0.877		
	WBI(I)3	0.798		
External	WBI(E)1	0.837	0.904	0.759
	WBI(E)2	0.914		
	WBI(E)3	0.862		
Identified	WBI(T)1	0.916	0.915	0.843
	WBI(T)2	0.921		
Anonymous	WBI(A)1	0.836	0.876	0.779
	WBI(A)2	0.927		
Formal	WBI(F)1	0.900	0.921	0.854
	WBI(F)2	0.948		
Informal	WBI(N)1	0.929	0.925	0.861
	WBI(N)2	0.926		

structural model results for the present study are displayed in Table 4.

Table 4 exhibits the results of the structural model, which consists of R^2, Q^2, and VIF (collinearity). It can be concluded from the result that our structural model has passed the collinearity test despite all the predicted accuracy being relatively small, ranging from 0.079 to 0.110. The R2 values show that our exogenous variable is able to explain the endogenous variable. This number goes from 11.8% to 22.1%, explaining how far the ability of the exogenous and moderating variable covers the variance of whistleblower intents. The final phase in this section is hypothesis testing and discussion. The hypothesis test findings are presented in Tables 5 and 6.

The hypothesis tests are divided into two parts. First, we are running the main model to test the effect of perceived personal cost on whistleblowing intentions (internal, external, identified, anonymous, formal, and informal) with three moderation variables, namely: microsocial ethical environment, group cohesion, and peer-reporting type. Second, following the work of Hakami et al. (2024), we run an additional test for the peer-reporting type as a moderation variable. Peer-reporting type has four different aspects, so we split this moderation variable into four dimensions (hierarchy, egalitarianism, individualism, and fatalism) and test the moderation effect of each of these peer-reporting dimensions on the relationship between perceived personal cost and whistleblowing intentions. Table 5 shows the hypothesis test for the first model, and Table 6 exhibits the hypothesis test for the four dimensions of the peer-reporting type.

Table 5 demonstrates the result of hypothesis testing for direct and moderation effects. The first hypothesis is proven that perceived personal cost significantly and positively affects whistleblowing intentions in all typologies (internal, external, identified, anonymous, formal, and informal) with p-values < 0.05 and an original sample range of 0.149 to 0.286. Therefore, the first hypothesis is supported. The results of the moderating effect are mixed for the second, third, and fourth hypotheses. For the second hypothesis, all p-values for the six categories are greater than 0.05, and

Table 3.
Discriminant Validity Test - Heterotrait-Monotrait Ratio (HTMT)

	GC	MEE	PPC	PRT	WBI(A)	WBI(E)	WBI(F)	WBI(I)	WBI(N)
Group Cohesion									
Microsocial Ethical Environment	0.241								
Perceived Personal Cost	0.352	0.104							
Peer-Reporting Type	0.342	0.649	0.271						
Whistleblowing Intentions (Anonymous)	0.183	0.108	0.382	0.164					
Whistleblowing Intentions (External)	0.243	0.101	0.401	0.138	0.559				
Whistleblowing Intentions (Formal)	0.260	0.228	0.302	0.342	0.710	0.377			
Whistleblowing Intentions (Internal)	0.385	0.411	0.319	0.368	0.543	0.475	0.698		
Whistleblowing Intentions (Informal)	0.182	0.146	0.435	0.339	0.692	0.546	0.703	0.555	
Whistleblowing Intentions (Identified)	0.265	0.138	0.425	0.126	0.516	0.850	0.484	0.427	0.4096

practically all of the original samples are positive (0.054-0.142), with the exception of H2b for external whistleblowing, which has a negative value of -0.018. Thus, the second hypothesis is not supported. The statistical test for the third hypothesis reveals that four of the six hypotheses are valued < 0.05, with the remaining two valued > 0.05. All the hypotheses in the third hypothesis have original samples between 0.123 and 0.195, implying that the interaction of group cohesion and perceived personal cost positively affects all typologies of whistleblowing intentions. It indicates that the third hypothesis is partially supported. The fourth hypothesis reveals that only one interaction has a significant moderation effect (p-value < 0.05): the effect of peer-reporting type and perceived personal cost on formal whistleblowing intentions (original sample value -0.165). The findings suggest that formal whistleblowing intentions are considerably and negatively impacted by the interplay between perceived personal cost and peer-reporting type. The remainder of the hypotheses 4 are not significantly affecting whistleblowing intentions as the p-value > 0.05 and with mixed direction. For Hypothesis 4b and 4f positive and 4a, 4c, and 4d negative. So, the fourth hypothesis is partially supported. This study also performs the test for analyzing the effect of peer-reporting type individually per dimension on six typologies of whistleblowing that are exhibited in Table 6.

This supplementary test is conducted in reference to Hakami et al. (2024). According to Hakami et al. (2024), the peer-

Table 4.
Structural Model

Variables & Items		R^2	Q^2	Collinearity (VIF)
Perceived Personal Cost	PPC1			1.312
	PPC2			2.041
	PPC3			1.892
Microsocial Ethical Environment	MEE1			1.245
	MEE4			1.548
	MEE5			1.377
Group Cohesion	GC1			1.367
	GC2			1.728
	GC3			1.896
	GC4			1.465
Peer-Reporting Type	PRT(E)1			2.343
	PRT(E)2			1.885
	PRT(E)3			2.073
	PRT(H)1			1.704
	PRT(H)3			1.783
Whistleblowing Intentions				
Internal	WBI(I)1	0.212	0.103	1.320
	WBI(I)2			1.724
	WBI(I)3			1.489
External	WBI(E)1	0.190	0.096	1.859
	WBI(E)2			2.560
	WBI(E)3			1.995
Identified	WBI(T)1	0.188	0.110	1.893
	WBI(T)2			1.893
Anonymous	WBI(A)1	0.118	0.012	1.479
	WBI(A)2			1.479
Formal	WBI(F)1	0.178	0.079	2.044
	WBI(F)2			2.044
Informal	WBI(N)1	0.221	0.105	2.087
	WBI(N)2			2.087

reporting type consists of four distinct policies for reporting peer misbehavior in organizations. The four policies are hierarchy, egalitarianism, individualism, and fatalism. The first model evaluates the hypotheses by integrating the four policies into a single variable, the peer-reporting type. Each of the four policies in the peer-reporting type is tested separately as a moderating variable for the additional test. The moderation test results for four distinct peer-reporting policies are compiled in Table 6. The moderation effects for the hierarchy and egalitarianism peer-reporting type are not significant because the results show p-values > 0.05 in both positive and negative directions. There are mixed findings for the result of individualism and fatalism peer-reporting type. For individualism, one interaction between the individualism peer-reporting type and perceived personal cost on internal whistleblowing intentions is significant with a p-value of 0.007 < 0.05 and an original sample of 0.203, but the remainder of the interactions are not significant. The last peer-reporting type is fatalism, and from six sub-hypotheses, three supported and the rest did not. The interaction between perceived personal cost and fatalism peer-reporting significantly affects external (-0.197), formal (-0.162), and informal (-0.201) whistleblowing intentions with a p-value less than 0.05.

Discussion

The Effect of Perceived Personal Cost on Whistleblowing Intentions

This study provides empirical evidence that

Table 5.
Hypotheses Test

Hypothesis		Original Sample	P-Value	Conclusion
PPC → WBI(I)	H1a	0.149	0.043	Supported
PPC → WBI(E)	H1b	0.276	0.000	Supported
PPC → WBI(T)	H1c	0.286	0.000	Supported
PPC → WBI(A)	H1d	0.272	0.000	Supported
PPC → WBI(F)	H1e	0.162	0.025	Supported
PPC → WBI(N)	H1f	0.261	0.001	Supported
PPC*MEE → WBI(I)	H2a	0.142	0.060	Not Supported
PPC*MEE → WBI(E)	H2b	-0.018	0.415	Not Supported
PPC*MEE → WBI(T)	H2c	0.125	0.070	Not Supported
PPC*MEE → WBI(A)	H2d	0.054	0.251	Not Supported
PPC*MEE → WBI(F)	H2e	0.103	0.092	Not Supported
PPC*MEE → WBI(N)	H2f	0.075	0.233	Not Supported
PPC*GC → WBI(I)	H3a	0.123	0.085	Not Supported
PPC*GC → WBI(E)	H3b	0.195	0.006	Supported
PPC*GC → WBI(T)	H3c	0.125	0.045	Supported
PPC*GC → WBI(A)	H3d	0.128	0.077	Not Supported
PPC*GC → WBI(F)	H3e	0.173	0.023	Supported
PPC*GC → WBI(N)	H3f	0.164	0.022	Supported
PPC*PRT → WBI(I)	H4a	-0.133	0.084	Not Supported
PPC*PRT → WBI(E)	H4b	0.038	0.345	Not Supported
PPC*PRT → WBI(T)	H4c	-0.044	0.314	Not Supported
PPC*PRT → WBI(A)	H4d	-0.105	0.115	Not Supported
PPC*PRT → WBI(F)	H4e	-0.165	0.026	Supported
PPC*PRT → WBI(N)	H4f	0.007	0.473	Not Supported

perceived personal cost is not a detrimental factor for a person who wants to report fraud. An individual with great fear of reprisal tends to escape the whistleblowing act for protecting him/ herself. Surprisingly, perceived personal cost is confirmed to positively affect whistleblowing intentions, whatever the type of whistleblowing, whether internal, external, identified, anonymous, formal, or informal. Our findings support the notion of prosocial behavior from Brief & Motowidlo (1986) and Dozier & Miceli (1985), which showed how individuals make calculations in their heads before doing something risky, such as whistleblowing. It is more prevalent in the case of a student's whistleblowing, where they have to report the fraud performed by their peers. They must ensure that retaliation costs less than the overall benefit to them or the organisation (Alleyne et al., 2019).

Our findings corroborate Karatuna & Başol's (2018) findings but contradict the prior findings from Hakami et al. (2024), Latan et al. (2018), Latan et al. (2021) and Park & Lewis (2019). All prior research affirms how personal cost diminished individual intention to report fraud or violation, whatever the profession is, such as tax office employee and auditor. Our findings provide different avenue compared to the mainstream of prior research that may stem from difference in sample characteristics. In the case of student's whistleblowing, we can designate it as peer-reporting, as the students have to

Table 6.
Moderation Hypotheses Test for Peer-Reporting Type

Hypothesis	Original Sample	P-Value	Conclusion
PPC*PRT(H) → WBI(I)	-0.143	0.088	Not Supported
PPC* PRT(H) → WBI(E)	0.014	0.443	Not Supported
PPC* PRT(H) → WBI(T)	0.040	0.348	Not Supported
PPC* PRT(H) → WBI(A)	-0.129	0.097	Not Supported
PPC* PRT(H) → WBI(F)	0.009	0.466	Not Supported
PPC* PRT(H) → WBI(N)	0.000	0.500	Not Supported
PPC*PRT(E) → WBI(I)	0.022	0.433	Not Supported
PPC* PRT(E) → WBI(E)	0.086	0.225	Not Supported
PPC* PRT(E) → WBI(T)	-0.041	0.382	Not Supported
PPC* PRT(E) → WBI(A)	0.072	0.279	Not Supported
PPC* PRT(E) → WBI(F)	-0.098	0.238	Not Supported
PPC* PRT(E) → WBI(N)	0.089	0.253	Not Supported
PPC*PRT(I) → WBI(I)	0.203	0.007	Supported
PPC* PRT(I) → WBI(E)	0.091	0.124	Not Supported
PPC* PRT(I) → WBI(T)	0.072	0.201	Not Supported
PPC* PRT(I) → WBI(A)	0.091	0.136	Not Supported
PPC* PRT(I) → WBI(F)	0.057	0.235	Not Supported
PPC* PRT(I) → WBI(N)	0.088	0.146	Not Supported
PPC*PRT(F) → WBI(I)	-0.094	0.128	Not Supported
PPC* PRT(F) → WBI(E)	-0.197	0.033	Supported
PPC* PRT(F) → WBI(T)	-0.094	0.178	Not Supported
PPC* PRT(F) → WBI(A)	-0.134	0.097	Not Supported
PPC* PRT(F) → WBI(F)	-0.162	0.041	Supported
PPC* PRT(F) → WBI(N)	-0.201	0.019	Supported

report the wrongdoing of their peers to someone outside their group, such as a lecturer. Compared to other methods of reporting violations, this type of whistleblowing imposed greater pressure (Loyens, 2013). Karatuna & Başol (2018) study, which exhibits support for our findings, gives a different context of the positive relationship between perceived personal cost and whistleblowing intention. They uncover how employees in Turkey try to report fraud externally or remain silent the higher the risk of organizational retaliation is.

Latan et al. (2021) emphasized that the biggest threats are peer intimidation, verbal harassment, and perceived pressure from the individual. It comes to the conclusion that students who believe that the personal costs of reporting are too excessive will remain silent, which will prevent them from telling others what they know. Nevertheless, students at state universities in Madura still choose to carry out whistleblowing motivated by altruistic or prosocial behavior and strong moral identity (Aslam et al., 2023) to reduce academic cheating committed by their peers. This finding proves how most students in Madura try to uphold their ethical value and have high moral concerns (Dungan, Young & Waytz, 2019). Nevertheless, our finding contradicts that of Waltzer, Samuelson & Dahl (2022) who investigate peer-reporting in similar subject. Waltzer et al. (2022) found that undergraduate students in United States more reluctant to blow the whistle when witness cheating or plagiarism of their peers. Differences in findings exhibit how cultural factor become a distinctive factor in shaping moral judgments and decisions.

The Moderating Effect of Microsocial Ethical Environment on Relationship Between Perceived Personal Cost and Whistleblowing Intentions

From the statistical result, it can be concluded that microsocial ethical environment is unable to moderate the effect of perceived personal cost on whistleblowing intentions significantly. Thereby, the second hypothesis is not supported. Our findings are not in line with that of Latan et al. (2018), who found that team norms partially weaken the negative effect of personal cost on whistleblowing intention. Conversely, the failure of microsocial ethical environment as a moderator couldn't fully antagonize social information processing theory. However, it can be inferred from the results of the first hypothesis that students in Madura Universities have a great number of moral concerns. So, they just don't regard the climate of their surroundings as a driving factor to boost their ethical concern, especially to whistleblow cheating or plagiarism. Therefore, it is difficult to demonstrate a meaningful relationship between organizational environment characteristics and whistleblowing intention in a formal whistleblowing procedure (Afe et al., 2019).

Latan et al. (2018) highlight that team norms play a pivotal role in reinforcing individual intentions in reporting fraud. The study of Latan et al. (2018) focuses on auditors, and they argue that the ethical climate in Indonesia is robust and becomes an essential aspect in boosting auditor intentions to whistleblow. On the other hand, our study focuses on students in Madura universities. As we investigate different respondents compare with prior studies, we also provide different findings. Our study also stresses peer reporting among students. Waltzer et al. (2022) elucidate that peer-reporting evokes complex pressures on students who want to whistleblow the violation of their peers. Peer-reporting also the most enigmatic form of whistleblowing (Loyens, 2013), so the students face a complex ethical dilemma and decide to remain silent. Depending on the class or university atmosphere, questioned students may conceal their genuine answer due to the possibility of reporting wrongdoings (Afe et al., 2019). Au, Fraune & Wullenkord (2023) also point out how group identity becomes a moral and decision compass for its members.

The students in Madura University also follow the same principle, where the member will adhere to the group norms

and values. Microsocial ethical environment refers to the climate of the group in the face of ethical considerations (Laili et al., 2022). When the ethical climate in some groups is unfriendly with whistleblowing, “snitches” or “tattletales”, its members will be reluctant to blow the whistle and report any form of cheating (Afe et al., 2019; Laili et al., 2022; Mayer et al., 2013). In sum, despite students having a high moral compass, when their personality intertwines with situational factors, their willingness to report wrongdoing can be strengthened or weakened (Asiamah & Mensah, 2021). This finding is actually in line with social information processing theory, where a prospective whistleblower will observe cues from the surroundings or the past experience of previous whistleblowers before blowing the whistle (Salancik & Pfeffer, 1978; Zalesny & Ford, 1990). Another explanation as to why microsocial ethical environment is not significant as the moderator between the relationship of perceived personal cost and whistleblowing intentions is stemmed from the lack of information regarding university policy, the absence of a formal whistleblowing channel (Waltzer et al., 2022), and the ineffectiveness of whistleblowing education (Caillier, 2017).

The Moderating Effect of Group Cohesion on Relationship Between Perceived Personal Cost and Whistleblowing Intentions

Group cohesion, which is assumed to be able to moderate the effect of perceived personal cost of whistleblowing intentions, is partially supported. Group cohesion is proven to only moderate the effect of perceived personal cost on external, identified, formal, and informal whistleblowing intentions. Four of six subhypotheses are supported, meaning that peer support has a pivotal role as contextual factor in whistleblowing intentions. Our results align with Alleyne et al. (2019), who found mixed findings between internal and external whistleblowing intentions. However, almost all the significant moderating effect is weakening the relationship between perceived personal cost and whistleblowing intentions (external, identified, and informal), except for formal whistleblowing channel. Alleyne et al. (2019) investigate just two kinds of whistleblowing channels, internal and external. Their findings show that the interaction between group cohesion and perceived personal cost on internal whistleblowing is insignificant, but for the external, it is significant.

Our findings also exhibit insignificant moderation between group cohesion and perceived personal cost on internal whistleblowing intentions and significant moderation for the external whistleblowing intentions. The empirical evidence provided by Latan et al. (2018) also confirms our findings regarding the interaction between team norms and perceived personal cost on internal and external whistleblowing channels. In the context of a tight-knit group, the members will protect each other without any regard. It means that whistleblowing is considered a taboo conduct in that kind of group (Latan et al., 2018). So, students more prone to choose silent rather than report internally, as the whistleblower and the fraudster have close relationship. Even more so for reporting to external parties, identifying themselves as the whistleblower in an informal way will mitigate the prospective whistleblower's intentions to blow the whistle when there are close ties with the perpetrator.

It can be concluded that every different kind of reporting channel has a diverse response from prospective whistleblowers. Our study, to the best of our knowledge, is the first to use all six different channels of whistleblowing by referring to the whistleblowing typology from Park et al. (2008). So, it is kind of challenging to accommodate all the findings with prior study when it is not using the same kind of channel that we adopt. It is proven that the moderation effect of group cohesion strengthens the relationship of perceived personal cost on formal whistleblowing intentions. Students in public universities in Madura prefer to resolve fraud issues in school in a formal

way by reporting on a lecturer or other influential figure who can sort out the fraud.

Afe et al. (2019) explain how perception of the school environment can mold the action of student's members and their decision-making process. The more cohesive the group, the lower the intention of a prospective whistleblower to come forward and report the wrongdoing. This kind of rule is observable from social information processing theory (Salancik & Pfeffer, 1978). Our findings support this theory, as the prospective whistleblowers choose to remain silent. This finding is also confirmed by Latan et al. (2018), who illuminate how auditors shut their mouths in front of wrongdoing where it is happening in a cohesive group context. The remaining insignificant moderation effects are for anonymous typology, as this kind of channel is kind of generic in many organizations. Whistleblowing is a complex mixture of personal characteristics, situational factors, and individual motives (Davis, Stazyk & Klingeman, 2020), so it will be challenging to unravel all the things about the channel that will be chosen by the whistleblower related to the personal cost and group cohesion intensity.

The Moderating Effect of Peer-Reporting Type on Relationship Between Perceived Personal Cost and Whistleblowing Intentions

Only the interaction effect between peer-reporting type and perceived personal cost on formal whistleblowing intentions is significant, while the rest are not. This evidence shows when formal whistleblowing channel is the only channel available, it will be less preferred as amplifying whistleblower perception regarding the personal cost that they will get from perpetrator. Students maybe feel the need of protection for themselves when they report wrongdoing (Asiamah & Mensah, 2019). Following Hakami et al. (2024), we further test the interaction effect of individual type of peer-reporting (hierarchy, egalitarianism, individualism, and fatalism). Our findings indicated that students in Madura universities prefer an individualism peer-reporting policy in case there is an internal channel to report fraud. In another sense, fatalism peer-reporting policy has proven to weaken student whistleblowing intentions through external, formal, and informal whistleblowing channels.

Our findings contradict Hakami et al. (2024), who found that students in Madura universities tend to choose a hierarchy peer -reporting policy in reporting fraud via internal channels. In the case of peer-reporting, group cohesion and policy regarding peer-reporting become key instruments in promoting whistleblowing intentions for students. This result shows that in the case of peer-reporting, the right policy and strong group support become a great vehicle to reduce perceived personal cost. Waltzer et al. (2022) state that one plausible reason is that students just do not care about academic integrity, and their denials of cheating are phony. Alternatively, students may elect not to report because they prioritize competing interests (for example, the welfare of others), are confused with school procedures, or believe there are better alternatives to reporting (Waltzer et al., 2022). Peer-reporting type mostly elucidates contrasting policy to take account for the wellness of whistleblowers when make their report to authorities.

Social information processing theory explains that students try to adhere to their social context (Salancik & Pfeffer, 1978) to stay relevant with their group and still feel accepted. However, by observing the evidence provided by this study, we know how conflicting the interaction of policy/regulation regarding whistleblowing and the fear of reprisal felt by prospective whistleblowers is. Our knowledge of whistleblowers and their actions has changed significantly despite its lengthy history. A large portion of this expansion can be attributed to an understanding that whistleblowing is complicated and marked by conflicting viewpoints (Davis et al., 2020). So, it is natural that various policy manifested through peer-reporting type

not all well-received by whistleblower for diverse kind of reason.

CONCLUSION

This study aims to present the empirical evidence of perceived personal cost on whistleblowing intentions and add three moderating variables to reduce the inconsistency of previous studies. The results reveal that students who believed that the personal cost and reprisal of reporting to be great will carry out whistleblowing. It is true for all six whistleblowing typologies, that is, internal, external, anonymous, identified, formal, and informal. Regardless of the reporting channel, students will endeavor to uncover cheating in order to reduce the negative impact felt by others. The interaction effect of microsocial ethical environment is proven not significant in moderating the effect of perceived personal cost on whistleblowing intentions. On the other hand, the interplay between perceived personal cost with group cohesion and peer-reporting type reveals mixed findings.

Our findings contribute to the body of knowledge and practice regarding student whistleblowing. First, we test all the forms of whistleblowing channels that were rarely done by previous studies. It is concluded that whatever channel is employed in reporting fraud, students will still report fraud that they know about. Empirically, this finding shows that students at universities in Madura still hold important ethical values through altruistic and prosocial behavior. Second, this study attempts to reduce the inconsistency of previous research findings by adding three moderating variables to observe factors that are considered to be able to strengthen or hinder students' intentions to whistleblow when they are faced with high personal costs. Our findings show that group cohesion can weaken students' intentions to whistleblow, especially through external, identified, formal, and informal channels. The peer-reporting individualism policy can also strengthen students' whistleblowing intentions through internal channels, while the peer-reporting fatalism policy weakens these intentions if students choose external, formal, and informal reporting channels. Our findings enrich whistleblowing literature by showing how diverse situational variable interact with personal factor such as perceived personal cost. Third, referring to the findings of this study, universities in Madura can provide whistleblowing reporting channels referring to the typology proposed by Park et al. (2008), provide ethics training to students to support whistleblowing, and implement the peer-reporting individualism policy. It is imperative as suggested by Afe et al. (2019) and Waltzer et al. (2022) that the existence of whistleblowing education, formal channel and socialization will improve student bravery to report the wrongdoing that they witnessed to autoritative parties who can tackle that wrongdoing.

LIMITATIONS AND SUGGESTIONS.

We conclude with limitations and suggestion for future study. First, due to the lack of studies related to whistleblowing that use all typologies proposed by Park et al. (2008), the findings of this study need to be interpreted carefully, especially because the direction of the influence of the perceived personal cost variable is contrary to the majority of previous research findings. To confirm the findings of this study, further studies are expected to use the whistleblowing typology from Park et al. (2008) and conduct tests on different respondents or subjects. Second, the microsocial ethical environment variable has been shown to be unable to moderate the influence of perceived personal cost on the six types of whistleblowing intentions. This finding contradicts the motivation of the current study. The motivation behind this study is to emulate the multi-moderation test that was carried out by Latan et al. (2018), who used three moderating variables simultaneously. This study is expected to develop a model of perceived personal cost and whistleblowing intentions by identifying elements that can moderate the relationship between the two variables. However, one of the variables proposed

was not able to moderate at all. Further research is expected to develop a more comprehensive model to map the factors that can moderate an individual's fear of whistleblowing, such as rationalization, perceived moral intensity, perceived organizational support, fear, arousal, and sadness. Lastly, this study used convenience non-probability sampling that made our respondents subject to sample selection bias. Moreover, our population is limited to students in Madura University. This further underscores the need to approach our findings cautiously. Additional study is needed to confirm the possibility of bias of sample selection in this study by providing findings with the same model but a different sampling technique. Future study can consider using probability sampling instead of non-probability sampling to mitigate the sample selection bias and strengthen the findings.

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Appendix 1.
Variables Operational Definition

Variable	Definition	Items	Source
Perceived Personal Cost (Independent)	Perceived personal cost is a potential threat of reprisal closely associated with whistleblowers after reporting a fraud they have witnessed (Cho & Song, 2015).	I am worried that my friend will make a big deal out of a small mistake I made. I am worried that my friend will ostracize me. I am worried that my friend will take revenge on me.	Cho & Song (2015) (Husser et al., 2019a; Laili et al., 2022a)
Microsocial Ethical Environment (Moderation)	In ethical terms (whistleblowing), a microsocial ethical environment is a minor component of the environment that can influence someone's decision-making in specific scenarios (Laili et al., 2022).	In the class I attend, there are written rules. I am often involved in class-related tasks. I often attend training related to ethics outside of class. I am willing to bear the risk of ethical actions that are violated. If I violate written rules, then punishment will be given by my friends/lecturers to me. If I violate class rules, then I will blame other students. My presence influences the implementation of tasks/activities in this class. I am assigned to carry out important tasks in this class.	Husser et al. (2019) & Laili et al. (2022)
Group Cohesion (Moderation)	Group cohesion refers to each individual's tendency to do or not do something for their group. (Alleyne et al., 2019).	To what extent do you trust your classmates? To what extent do your classmates help you complete your assignments? To what extent do your classmates feel friendly to you? To what extent do your classmates take a personal interest in you? To what extent do you look forward to being with your classmates every day?	Alleyne et al. (2019)
Peer-Reporting Type (Moderation)	Peer-reporting is one of the most sensitive forms of whistleblowing, with the largest personal cost (Loyens, 2013). Peer-reporting type refers to the type of policy that can be chosen by the whistleblower, namely fatalism, hierarchy, individualism, and egalitarianism (Hakami et al., 2024).	I believe that every human being is bound by a system that cannot be controlled (F). I am always suspicious of others because I cannot predict what they will do (F). I believe that problems can be solved if I am lucky and try to survive (F). I am not willing to make plans or be prepared for the future (F). I like to work in a competitive environment (I). I always try to achieve my desires and satisfy myself (I).	Hakami et al. (2024)

Appendix 1. (Continue)

Variable	Definition	Items	Source
Peer-Reporting Type (**Moderation**)	Peer-reporting is one of the most sensitive forms of whistleblowing, with the largest personal cost (Loyens, 2013). Peer-reporting type refers to the type of policy that can be chosen by the whistleblower, namely fatalism, hierarchy, individualism, and egalitarianism (Hakami et al., 2024).	I always solve problems by negotiating and bargaining (I). I do not like to cooperate and tend to put myself above the common interest (I). I believe that rules explain roles and responsibilities in a group (H). I believe that humans are born sinful but can be redeemed by doing good deeds (H). I believe that problems can be solved by obeying rules and authorities (H). It is possible that I put the wrong trust in rules and authorities (H). I believe that all people are equal and should work together for the common good (E). Humans are born good but can turn bad by doing bad things (E). I believe that problems can be solved through deliberation to reach a consensus (E). I tend to make long-winded decisions and blame others (E).	Hakami et al. (2024)
Whistleblowing Intention (**Dependent**)	Whistleblowing intention is an individual's intention to report fraud to particular people through many distinct techniques (reporting channels) (Park et al., 2008).	He reported the fraud to the right person in the class (Int). He informed the lecturer about the fraud (Int). He reported it to the class leader (Int). He reported the fraud to the authorities outside (Ext). He provided information to external agencies (Ext). He informed the public (Ext). He reported the fraud using his real name (Idt). He reported the fraud by providing detailed information about himself (Idt). He will report the fraud using a pseudonym (Ano). He will report the fraud but will not provide information about himself (Ano). He uses official channels to report the fraud (For). He reported the fraud through established procedures (For). He reported the fraud informally to a close colleague who is able to fix the fraud (Inf). He reported the fraud informally to someone he trusted who was in charge of fixing the fraud (Inf).	Park et al. (2008)