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Personal Factors Affecting Whistleblowing Among Public Sector Employee

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Abstract: Whistleblowing is a difficult choice among the witnesses of wrongdoing. This study investigates what influences the decision to report such incidents within the Indonesian Public Administration, focusing on individual factors. Using quantitative research methods, data were collected from 406 Indonesian public sector workers via a convenience survey and snowball sampling. The results reveal that the likelihood of whistleblowing is significantly influenced by confidence in the reporting channel's management, social anxiety, individualism and collectivism, the propensity to blow the whistle, and the individual's locus of control. Moreover, the PBW acts as a moderator on the effect of individual's locus of control. To increase the tendency towards whistleblowing, the study suggests that authorities should bolster legal safeguards for informants, including anti-reprisal actions, legal protection and organizational backing for support networks.

Keyword: Likelihood of Whistleblowing, Propensity to Blow the Whistle, Social Anxiety, Confidence on Reporting Channel, Locus of Control

INTRODUCTION

Addressing corruption and enhancing integrity across nations grappling with challenges such as poverty, socio-economic imbalances, and justice access limitations underscores whistleblowing's crucial role. Adverse effects of corruption on economic growth, investments, and public service funding underscore the significant impact (Farrag & Ezzat, 2020). A decline in Corruption Perception Index rankings like happening in Indonesia signals corruption's widespread nature (Christianingrum, 2023; Transparency International, 2024). The Association of Certified Fraud Examiners (ACFE, 2022) highlights whistleblowing as a key mechanism in fraud detection, emphasizing its effectiveness in exposing malpractices. The recent survey found that 42% of fraud detections are attributed to whistleblowing, surpassing internal audits and management reviews (ACFE, 2022). Within the public sector accounting context, the critical role of accountants and auditors in uncovering and reporting accounting fraud has been increasingly recognized, as highlighted by (L. Gao & Brink, 2017; Hamdani & Hariadi, 2022).

The decision to disclose corrupt activities is shaped by factors such as the gravity of the issue, a sense of personal accountability, and the repercussions of reporting (Schultz et al., 1993). The provision of organizational support and constructive feedback mechanisms is vital for encouraging whistleblowing. However, the fear of retaliatory actions often deters potential whistleblowers (Alleyne et al., 2018). An ethical environment, fostered by dedication to public service, psychological security, and organization identification, along with clear whistleblowing policies and educational initiatives, significantly influences reporting behaviors (Nuswantara, 2019; Previtali & Cerchiello, 2022), highlighting the impact of personality traits on whistleblowing motivations.

Research underscores the roles of personal ethics, societal norms, and anticipated outcomes in the decision to report organizational misconduct. Studies emphasize the impact of fear of retaliation on whistleblowing intentions, while exploring the influence of moral intensity, social influence, and organizational loyalty on such decisions (Chen & Lai, 2014; Iwai et al., 2019). Additionally, perceptions of ethical leadership and organizational politics are shown to mediate whistleblowing activities (Cheng et al., 2019). Conversely, the context and severity of misconduct, rather than individual characteristics, are often seen as more influential in the decision to whistleblow (Cassebatis & Wortley, 2013). Enhancing whistleblowing frameworks by integrating aspects like social anxiety and locus of control, and employing statistical methods to examine the interplay of these factors, could provide deeper insights into the complex decision-making processes behind whistleblowing.

Whistleblowing serves as a prosocial behavior essential for promoting transparency and accountability (Latan et al., 2019; Su & Ni, 2018), yet fear of retaliation remains a significant barrier (Kenny et al., 2019). Strengthening whistleblower protections through technological advancements, legal frameworks, and a supportive organizational culture are crucial steps (Berendt & Schiffner, 2022; Hakim, 2017). Investigations into the behavioral aspects of whistleblowing reveal the persistence of fraud despite the presence of whistleblowing mechanisms, pointing to the need for a deeper understanding of the individual behavioral factors driving whistleblowing (Culiberg & Mihelič, 2017; Situmeang & Utami, 2020; Suwito & Aprillia, 2019).

Our investigation seeks to revisit and expand upon (Su & Ni, 2018) middle range theory concerning public whistleblowing focusing on the personal factors affecting perceived likelihood of whistleblowing. This study scrutinizes essential elements such as confidence in internal reporting mechanisms, the dichotomy between individualistic and collectivist cultural orientations, and the role of perceived organizational support in influencing whistleblowing likelihood. The guiding queries for this research include: (1) Identifying critical personal attributes that affect the probability of whistleblowing among employees within the public sector of Indonesia, and (2) Examining how these attributes influence the likelihood of whistleblowing. Through this approach, the study intends to enrich the scholarly dialogue surrounding factors that drive whistleblowing, thereby providing valuable insights for more informed decision-making within the realms of accounting and auditing applicable across both the public and private sectors.

METHOD

This positivistic research utilizes quantitative methods, applying regression and effect analysis to explore the factors influencing whistleblowing likelihood. Adopting snowball and convenience sampling methods, this approach is tailored for the nuanced context of whistleblowing research. Such non-random sampling strategies are chosen for their ability to maintain participant confidentiality and motivate contributions from individuals with direct experience in whistleblowing, despite potential impacts on the findings' broader applicability (Petersen & Valdez, 2005; Sadler et al., 2010). The study secures a respondent count that aligns

with the suggested minimum sample size for factor analysis, ensuring a substantial predictor-to-participant ratio of 20:1 (Debusk-lane, 2019). Collected through an online survey, participant responses regarding incidents of fraud or corruption within their organizations inform the study's empirical model, analyzed through multiple regression techniques.

During preparation and the execution of survey questionnaires, we conduct wording test, pre-test questionnaire, validity and reliability testing, as well as classic assumption testing. This survey study gathered answers from 406 respondents. In conducting the empirical modeling for this research, multiple regression analysis techniques serve as the analytical tools utilized. The study employs quantitative response regression models as data analysis methods to examine the impact of various determinants on the dependent variable, specifically the likelihood of whistleblowing.

Empirical evidence suggests that confidence in reporting channels significantly influences whistleblowing intentions, with higher trust in external channels correlating with increased likelihood to report (Gao et al., 2015; and Latan et al., 2019). Confidence on the reporting channel and the way to escalate and make sure the follow up process indicate one's sufficient capabilities in considering to report the wrongdoing (Latan et al., 2019). This supports the development of Hypothesis 1a and 1b, which propose a positive relationship between confidence in internal and external reporting channels and whistleblowing intentions.

Social anxiety, as a personal challenging attribute, is found to have a potentially inhibiting effect on whistleblowing. Individuals with higher social anxiety may perceive lower confidence and social abilities (Riggio et al., 1990) and consequently, exhibit lower whistleblowing intentions. This informs Hypothesis 2, which anticipates a negative relationship between social anxiety and the likelihood of reporting wrongdoing. Previous findings indicate that internal factors such as social dynamics and perceived personal consequences can significantly influence whistleblowing intentions (Pertwi et al., 2018), suggesting the potential inhibitory role of social anxiety.

Regarding locus of control, individuals with a more internal locus of control—those who believe they can influence outcomes—are more likely to take proactive steps (Chiu, 2003), such as whistleblowing. This aligns with Hypothesis 3, predicting that a more internal locus of control will positively influence whistleblowing intentions. Research suggests that individuals with a stronger internal locus of control may feel more empowered to take action when they directly observe unethical behavior (Kanojia et al., 2020), which could encourage whistleblowing.

Hypothesis 4 posits a negative relationship between collectivism and whistleblowing intentions. Studies suggest that in collectivist cultures, group loyalty may deter individuals from reporting misconduct, prioritizing group harmony over individual action (Dhamija & Rai, 2018). This hypothesis can be supported by examining the cultural dimensions that influence whistleblowing intentions, considering how collectivist values may inhibit such actions. There is a negative relationship between collectivism and whistleblowing intentions, such that higher levels of perceived collectivism in society are associated with a decreased likelihood of reporting wrongdoing. This is supported by Cheng et al., (2019) who found that individuals from collectivist cultures are less likely to engage in whistleblowing than those from individualistic cultures, suggesting cultural orientation significantly impacts whistleblowing behavior (Cheng et al., 2019).

Hypothesis 5 asserts that a high propensity to blow the whistle correlates positively with actual whistleblowing. The inclination to report wrongdoing is critical in determining whether individuals act upon observed misconduct (Watts & Ronald Buckley, 2017). An individual's propensity to blow the whistle is positively related to their likelihood of reporting wrongdoing. The more inclined an individual is towards whistleblowing, the greater the probability they will report. This notion aligns with the findings by Situmeang & Utami, (2020), where

whistleblowing intentions were affected by the individual's cultural orientation and the type of reporting channel provided, indicating the intrinsic motivation to act against fraud (Situmeang & Utami, 2020).

Hypothesis 6 explores the interaction between the propensity to blow the whistle and collectivism, proposing that a strong inclination to act may enhance the positive effects of individualist orientations on whistleblowing intentions. This hypothesis can be informed by studies examining how personal values interact with cultural norms to influence reporting behaviors (Situmeang & Utami, 2020). The propensity to blow the whistle moderates the relationship between IDVCOL and LWB, enhancing the positive effect of individualism on LWB. This interaction suggests that when individuals are more inclined to blow the whistle, the negative impact of collectivism on whistleblowing intentions may be reduced, as supported by the work of Latan et al., (2016), which highlighted the complexity of individual-level antecedents (team norm) and their interaction with perceived responsibility of whistleblowing (Latan et al., 2016).

Hypothesis 7 considers the propensity to blow the whistle as a moderating factor in the relationship between locus of control and whistleblowing intentions. An internal locus of control, combined with a high propensity to act, is expected to strengthen whistleblowing intentions (AnggraenyRidwan, 2019). The propensity to blow the whistle affects the relationship between locus of control and the likelihood of whistleblowing, augmenting the positive effect of internal LOC on LWB. Individuals with a higher internal locus of control, who believe they can influence outcomes, are more likely to report wrongdoing, especially when they have a high propensity to blow the whistle. This is in line with the research by (AnggraenyRidwan, 2019). which indicated that locus of control has a positive and significant effect on whistleblowing intention, and organizational commitment can moderate this relationship.

Recent studies have emphasized the significance of ethical climates in influencing whistleblowing intentions, suggesting that a principled ethical climate can foster both internal and external whistleblowing activities (Badrulhuda et al., 2017). Moreover, the role of internal control and the whistleblowing system in fraud prevention has been underlined, indicating their positive impact on deterring fraudulent activities (Inawati, 2021). The interaction of Machiavellian traits, professional commitment, and the seriousness of violations also plays a crucial role in shaping whistleblowing intentions (Rusmita, 2022). These insights underscore the multifaceted nature of whistleblowing behavior, shaped by individual perceptions, organizational mechanisms, and the ethical environment.

Table 1 shows the hypothesis and measurement indicators created in the study, which are largely based on formulations derived from a literature survey, both theoretical and empirical.

Table 1. Concept Operationalization

Variable	Hypothesis
A. Dependent Variable	
Likelihood of Whistleblowing (Y)	Individual's perceived probability of reporting observed misconduct, quantified using a single item scale ranging from 0 (never) to 10 (always) (Schultz et al., 1993).
B. Independent Variables	
a. RCA: Confidence on Reporting Channel (X₁)	positive (+): The more confident with reporting channel (internal (X _{1a}) or external(X _{1b})), the more likely the witness will report and vice versa (v.v.). (H1a and H1b)
b. SAS: Social Anxiety (X₂)	(-): The more socially anxious the witness, the less likely they are to report wrongdoing and v.v. (H2)
c. LOC: Locus of Control (X₃)	(+): If the witness perceives a more internal locus of control, they are more likely to report wrongdoing and v.v. (H3)

Variable	Hypothesis
d. IDVCOL: Individualism vs Collectivism (X₄)	(-): If the witness perceives higher collectivism in society, the less likely the witness will report wrongdoing; and v. (H4)
e. PBW: Propensity to Blow the Whistle (X₅)	(+): If the witness's propensity to blow the whistle is high, they are more likely to report and vice versa (v.v.) (H5)
f. PBW (X₅) x IDVCOL (X₄)	(+): The propensity to blow the whistle (PBW) affects the the relationship between IDVCOL and LWB enhancing the positive effect of IDVCOL on LWB and v.v. (H6)
g. PBW(X₅) x LOC (X₃)	(+): The propensity to blow the whistle (PBW) affects the relationship between Locus of Control (LOC) and the likelihood of whistleblowing (LWB), augmenting the positive effect of internal LOC on LWB and v.v. (H7)

This study uses the moderated regression analysis model as a type of modeling which examines the self-assessed likelihood of whistleblowing where higher score indicates the higher chance of whistleblowing of the respondents which influenced and moderated by several determinant factors.

- a) Direct effect: H1a to H5: $Y = a + \beta_n X_n + e_n$ (where n ranges from 1 to 5)
- b) Moderated effect: H6 to H7: $Y = a + \beta_5 X_5 + \beta_n X_n + e$ (where n = 3 and 4)
- c) Simultaneous effect: H8: $Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_4 \cdot X_5 + \beta_3 X_5 + e_8$

RESULTS AND DISCUSSION

The study engaged participants from September 23 to October 23, 2023, by employing Twitter/X and Facebook and targeting employees from the Indonesian public sector, specifically PNS (civil servants) and PPPK (government contract workers). Additionally, the research team applied snowball sampling, encouraging upper and middle-level officials and other staff within our network to distribute the survey. The effort culminated in the participation of 406 employees, who were vetted based on their employee ID, affiliation, and job status, though they were allowed to remain anonymous due to the sensitive nature of the inquiry. This method of selection suggests that while the findings offer valuable insights, they may not fully represent all Indonesian public sector employees.

Descriptive statistics of our sample will be explained as follows: The demographic breakdown showed that regional civil servants constituted 56% (227), central government civil servants 39% (157), regional contract workers 2% (7), and central government contract workers 1% (5), with the remainder being employees on a temporary or honorarium basis. Income levels among participants varied, with a distribution across different salary brackets.

Regarding gender distribution, the survey recorded 215 male and 179 female respondents, alongside 12 individuals who preferred not to disclose their gender. The educational attainment varied, with a significant number holding bachelor's degrees (262), followed by master's degrees (78), diplomas (40), high school diplomas (17), PhDs (8), and one having an elementary school education. The cultural diversity of the respondents was notable, with a majority identifying as Javanese (104), followed by other ethnic groups, including 41 Bolaang Mongondow, 40 Minahasa, and 23 Batak, while 51 chose not to specify their ethnicity. Out of the total respondents, 113 (27.83%) reported having witnessed unethical behavior in the workplace, but only 15 (13.27%) took steps to report these observations, indicating a worrisomely low level of whistleblower behavior among public sector workers in Indonesia.

Reasons for not reporting wrongdoing (answer can more than one): A afraid of retaliation by perpetrator (42%), Pessimistic due to previous unaddressed reports (30%), Afraid of negative impact on job (31%), not wanting other facing issues (28%), Perpetrator may be

instructed by superiors (24%), etc. Regarding training on whistleblowing system, 39,9% already received training in whistleblowing system while 60,1% answers have not. The type of whistleblowing (can choose more than one are various with misuse of position for personal gain as the most modus (55,56%), financial misreporting (35,19%), performance misreporting (34,26%), violation of work standards and inefficiency off organizational assets use (each for 32,41%), and misuse of authority by employees (29,63%), while the rest type varies below 11,12% (bribery, embezzlement, harassment, and others).

Regarding the frequency of occurrence witnessing wrongdoing, generally they 72,2% reporting have never seen wrongdoing in their working place within a year, 18,5% have seen more than 3 times, other 5,7% one time, 3,7% two to three times. Regarding the perceived level of wrongdoing: The majority of 21,3% 7 and 21,3% 6 as severe, and as very severe (score 8: 13, 89% and score 9: 8,33%) (scale 1-9). While the rest is deemed as not severe.

To enhance the survey's clarity and effectiveness, a preliminary wording test was conducted with seven participants to identify and correct any confusing questions. A follow-up pre-test with 40 individuals confirmed the survey's reliability and construct validity. The study adopted a correlation coefficient benchmark of 0.098, based on Pearson's correlation reference, with a critical value set at the 5% significance level for the given sample size. The results showed most variables scoring above this benchmark (ranging from 0.110 to 0.608), verifying the survey's question clarity and comprehension, and setting the stage for further reliability tests. Despite some variables falling below this threshold, they were still included in the reliability analysis to ensure comprehensive evaluation.

Our final model, based on Yamaguchi's (2005) framework with slightly change, covers key constructs such as Antecedent (IDVCOL, RCA, SAS, LOC), Behavioral Intent (PBW), and Consequence (LWB), with reliability confirmed via Cronbach's Alpha in SPSS. Here are the Cronbach's Alpha results with abbreviations for the number of items (N) and Cronbach's Alpha (α):

- SAS : $\alpha = 0.803$, N = 6
- LOC : $\alpha = 0.186$, N = 4
- IDVCOL : $\alpha = 0.870$, N = 10
- PBW : $\alpha = 0.883$, N = 9
- WBCI : $\alpha = 0.884$, N = 3
- WBCE : $\alpha = 0.786$, N = 4

In reliability tests, all metrics met the Cronbach's Alpha benchmark of 0.6 for internal consistency, except for the LOC variable. The LOC, informed by the I-E LOC scale from (Craig et al., 1984; Kovaleva, 2012; Nießen et al., 2022), showed a reduced Alpha because of its four-item structure addressing both control dimensions. Despite this, LOC's reliability remained intact. The questionnaire was then adjusted with the pilot testing result to ensure clarity and conciseness.

Table 2. KMO and Bartlett's Test of Sphericity

Variable Construct	KMO Measure	Bartlett's Test of Sphericity (Sig.)
SAS	0.803	0.000
LOC	0.186	0.000
IDVCOL	0.870	0.000
PBW	0.883	0.000
WBCI	0.884	0.000
WBCE	0.786	0.000

As for validity we test the Kaiser-Meyer-Olkin (KMO) measurement as set in Table 2, with values exceeding 0.5 considered satisfactory. Additionally, Bartlett's Test of Sphericity is

utilized, where a value below 0.05 indicates sufficient correlation between variables for factor analysis (Cleff, 2019). Based on the results of the validity test, it can be inferred that almost all variables exhibit a KMO value greater than 0.5 and all significance level for Sphericity is lower than 0.05. Despite LOC has KMO value lower than 0.5, we still use it as it has been tested many times. Nonetheless, given the KMO value and Bartlett’s Test of Sphericity result, that all variables are suitable for further analysis.

Based on the multicollinearity test results in Table 3, it is evident that each independent and moderating variable in the study displays a Tolerance Value well above the critical threshold of 0.10, and all Variance Inflation Factor (VIF) values are significantly below the limit of 10. This outcome indicates the absence of multicollinearity concerns within the regression model, affirming the adequacy of the variables for inclusion in multiple regression analysis.

Table 3. Multicollinearity Test Results

Variable	Collinearity Statistics	
	Tolerance	VIF
(Constant)	-	-
WBCE (IV)	0.496	2.017
WBCI (IV)	0.377	2.651
PBW (IV)	0.577	1.733
SAS (IV)	0.964	1.037
LOC (Z)	0.846	1.183

Based on the results of validity test, reliability test, classic assumption tests, regression analysis can now be processed with primary data for the main test. We then conduct analysis of variance (ANOVA) or F-test which is a vital tool in regression analysis, used to ascertain the collective impact of all independent variables on a dependent variable simultaneously (Cleff, 2019). The following Table 4, derived from questionnaire data and SPSS processing, presents the results of the ANOVA regression test:

Table 4. F-Test Result

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F	df1	df2	Sig. F Change
1	0.674 ^a	0.454	0.443	1.788	0.454	41.265	8	397	0.000

a. Predictors: (Constant), IDVCOLxPBW, WBCI, SAS, LOC, PBW, WBCE, IDVCOL, LOCxPBW

b. Dependent Variable: LWB

The F-Test results on the Table 4 show an F-statistic of 41.265 and a significance value of 0.000. The F-statistic is then compared against a critical F-value from the F-distribution to determine statistical significance. The critical F-value is calculated using the inverse cumulative distribution function of the F-distribution, taking into account the model’s degrees of freedom and the residuals. This calculation, which can be done using Microsoft Excel, employs the formula = FINV (0.05, df1, df2), where α is the significance level (typically 0.05 for 95% confidence), df1 is degrees of freedom for regression, and df2 is degrees of freedom for residuals. The critical F-value at an alpha level of 0.05 is found to be 1,961. Given that the F-statistic of 41.265 significantly exceeds this critical value, it suggests that the model’s ability to predict LWB is not due to random chance, thus affirming the model's predictive validity. The

p-value associated with the F-statistic, being below 0.001, further reinforces the model's statistical significance.

The threshold for significance is set at 0.05. If the significance value from the ANOVA is less than 0.05, it implies that at least one factor within the model significantly affects the dependent variable. The table shows a significance value of 0.000, indicating that the model fits well and that the independent variables have a simultaneous impact on the dependent variable. In conclusion, the F-value and significance level comparison affirm that the model is a proper fit and that all variables significantly affect the LWB simultaneously.

The empirical model's estimation outcomes, derived from examining the determinants of LWB using a 2x2 factorial vignette study, are presented through the regression model shown in Table 5.

Table 5. Regression Model Processing Results

Dependent Variable (Y_LWB)			
	Coefficients Beta	t	Sig.
Constant (C)	-2,169	-0,941	0,347
Independent Variables:			
X_{1a} RCA Internal **	0,405	7,300	0,000
X_{1b} RCA External **	0,192	3,082	0,002
X₂ SAS **	-0,055	-1,347	0,179
X₃ LOC	0,235	1,097	0,273
X₄ IDVCOL	0,069	0,191	0,848
X₅ PBW **	0,808	2,776	0,006
X₅ PBWxX₄IDVCOL	-0,025	-0,568	0,570
X₅ PBWxX₃ LOC	-0,040	-1,471	0,142

, ** : significant at alpha level (α) 1% (), 5% (**)

Thus, Hypothesis 8 can be formulated as follows:
 $Y = -2.169 + 0,405 \cdot WBCI + 0,192 \cdot WBCE - 0,055 \cdot SAS + 0,235 \cdot LOC + 0,069 \cdot IDVCOL + 0,808 \cdot PBW - 0,025 \cdot (IDVCOL \times PBW) - 0,040 \cdot (LOC \times PBW) + e$.

To determine the critical t-values for statistical significance in a t-test, the researcher must calculate degrees of freedom (df), which in this case is the sample size (406) minus the number of predictors (11), resulting in 395 degrees of freedom. Utilizing a two-tailed test approach and Microsoft Excel's function T.INV.2T, the critical t-value for the upper limit is recalculated. With these adjustments, the new critical t-values should be re-evaluated, ensuring the t-test analysis remains accurate for the revised sample size and number of variables. The re-calculated t-values will then inform the conclusion of the t-test, detailed in the Table 6.

The t-test result of each independent variable is as follows:

Table 6. Conclusion of T-Test

	Standardized Coefficients Beta	t (with lower edge - 1.966 and upper value:1.966)	R	R square	Sig. (0.050 Crit value)
(Constant)		-3,279			0,001
SAS	-0,110	-2,230	0,110	0,012	0,026*
LOC	0,157	3,204	0,157	0,025	0,001*
IDVCOL	-0,243	-5,043	0,243	0,059	0,000*
PBW	0,460	10,399	0,460	0,211	0,000*
WBCI	0,608	15,402	0,608	0,370	0,000*
WBCE	0,609	11,955	0,511	0,261	0,000*
IDVCOL xPBW	-0,083	-0,321	0,468	0,219	0,749*

	Standardized Coefficients Beta	t (with lower edge - 1.966 and upper value:1.966)	R	R square	Sig. (0.050 Crit value)
LOCxPB	-0,600	-2,119	-	0,036	0,035*
W			0,600		

Source: Processed by the Author, Taken from SPSS Result from Calculation of the T-Table

According to the model R square table on Table 7, which reflects an R value of 0.674, there is a significant positive correlation between the independent variables—RCA (X1a & X1b), SAS (X2), LOC (X3), IDVCOL (X4)—and the moderating variable, PBW (X5). The R² value of 0.454 indicates that these variables account for the moderate amount of variability in whistleblowing likelihood.

Ratner (2009) posited that the R value reflects the strength and direction of a relationship, with R value in 0.7 to 1.0 level considered to have a strong positive linear relationship. The substantial R value obtained in this study confirms a robust positive association between the independent variables and the PBW. Furthermore, even though the R² value stands at 0.500, within the context of behavioral sciences, this figure is considered quite significant. It denotes that while the model explains 50% of the variance, the remaining variance, influenced by external factors not included in the model, is an accepted limitation given the inherent complexities of human behavior.

The adequacy of the R² score in behavioral research is particularly noteworthy. Therefore, the model's ability to elucidate a substantial portion of the whistleblowing dynamics is emphasized, highlighting its relevance and applicability in practical scenarios, despite the unpredictable nature of human actions. Thus, the model's predictive capacity, denoted by an R² of 0.500, is validated as an adequate measure in the behavioral study of whistleblowing, providing a meaningful understanding of the factors that influence this complex human behavior.

Table 7. R and R square

Model Summary ^b									
Model	R	Adjusted			Change Statistics				
		R Square	R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	0.674 ^a	0.454	0.443	1.788	0.454	41.265	8	397	0.000

a. Predictors: (Constant), IDVCOLxPBW, WBCI, SAS, LOC, PBW, WBCE, IDVCOL, LOCxPBW

b. Dependent Variable: LWB

Based on the survey result as shown in Table 5, the research indicates a significant positive influence of both internal and WBCE on whistleblowing likelihood, affirming the alternate hypothesis and aligning with findings by Kenny et al. (2019) who posit that confidence in reporting mechanisms is pivotal to promoting whistleblowing. With R scores of 0.608 and 0.511 for internal and external channels respectively, and p-values < 0.001, the statistical robustness underscores the importance of these channels as determinants of whistleblowing likelihood. Consequently, the results support **H1a** and **H1b**.

The research reveals that SAS has a minor but significant impact on whistleblowing, accounting for 1.2% of the variance in its likelihood (R Square = 0.012). This effect, validated by a statistically significant p-value of 0.026, suggests that SAS influences whistleblowing decisions, as it can heighten the fear of retaliation. This conclusion is consistent with the work of Maner et al. (2008) that people with SAS might physically react to any threats to their social status, which in turn could heighten the fears around whistleblowing. Consequently, **H2 is supported**.

The regression analysis indicates a small but significant relationship between LOC (LOC) and whistleblowing likelihood, with LOC accounting for 2.5% of the variance in whistleblowing behavior (R Square = 0.025, F Change = 10.267, $p = 0.001$). This finding supports Hypothesis H9 and aligns with prior research Yustina & Siringoringo (2020) reinforcing the role of individual psychological traits, like LOC, in determining ethical actions, such as whistleblowing, in organizational settings. Consequently, **H3 is supported**.

The empirical study demonstrates a moderate relationship between perceived individualism and collectivism and whistleblowing likelihood, with approximately 5.9% of the variance in whistleblowing behavior explained by these cultural dimensions (R Square = 0.059, F Change = 25.338, $p < 0.001$). This **H4 is supported** and aligns with research by Yamaguchi (2015), emphasizing the significant influence of cultural factors, such as individualism and collectivism, on ethical decision-making and whistleblowing practices.

The empirical study demonstrates that an individual's PBW (PBW) significantly influences their likelihood of reporting organizational misdeeds, accounting for 21.1% of the variance in whistleblowing behavior (R Square = 0.211, F Change = 108.137, $p < 0.001$). Accordingly, **Hypothesis H5 is supported** and aligns with the theoretical frameworks of Yamaguchi (2015).

The moderated regression analysis uncovers that PBW does not moderate the impact of cultural orientation on the likelihood of whistleblowing, contradicting previous studies by Cassematis & Wortley (2013) and Latan et al. (2017) that highlighted the role of individual beliefs. This is shown by the non-significant change in R-square when PBW is introduced as an interaction term (F change = 0.103, $p = 0.749$). This finding, which contradicts the significant role of personal beliefs and organizational culture posited by previous studies (Cassematis & Wortley, 2013; Latan et al., 2017), suggests that whistleblowing tendencies may be more influenced by a broader set of factors, including reporting mechanisms and administrative culture, rather than solely by individualism or collectivism (Onyango, 2021; Situmeang & Utami, 2020). **Thus Hypothesis H6 is not supported**.

The moderated regression analysis provides statistical evidence **supporting Hypothesis 7 (H7)**, revealing a moderating effect of Personal Belief in Whistleblowing (PBW) on the relationship between Locus of Control (LOC) and the likelihood of whistleblowing. Specifically, the model indicates that individuals with stronger PBW are more inclined to report unethical practices, irrespective of their LOC. The model shows an R square of 0.223 with a slight increase from the previous model ($\Delta R^2 = 0.009$), and the change in F statistic is significant ($\Delta F = 4.488$, $p = 0.035$), underscoring the relevance of PBW in predicting whistleblowing behaviors. This aligns with (Gelfand et al., 2006) assertion that psychological attributes, coupled with perceived control, effectively forecast proactive responses to workplace improprieties. This test result reinforces the significant role that individual beliefs play in ethical decision-making processes within organizational settings.

The ANOVA in the f-test results depicted in the table demonstrate a significant collective effect of the independent variables on the dependent variable, LWB (LWB). With an F-statistic of 41,265 and a significance level of 0.000, these results are indicative of a statistically substantial predictive capability of our model for LWB. Thus, based on the research results, WBCI, WBCE, SAS, LOC, IDVCOL, PBW simultaneously influence the LWB. As a result, the research results support **hypothesis H8**.

CONCLUSION

Our investigation, involving 406 employees from the Indonesian public sector, disclosed that only 27.83% of employees who observed misconduct reported it, indicating a mere 13.27% whistleblowing rate. This low reporting rate highlights the influence of psychological, cultural, and organizational factors on whistleblowing decisions, as supported by research from L. Gao

& Brink, (2017); Onyango, (2021); and Yamaguchi, (2015). These studies emphasize the role of individual characteristics, societal norms, and specific situational factors in shaping whistleblowing behaviors.

The study underscores the positive effects of both internal and external reporting channels, illustrating their critical role in bolstering whistleblowing. Moreover, it points out the nuanced impact of social anxiety, locus of control, cultural dimensions, and personal beliefs on whistleblowing decisions. Advocating for improved whistleblower protection and secure, anonymous reporting avenues, the research aligns with efforts to combat corruption by promoting ethical behavior within organizations, as echoed by Berendt & Schiffner (2022); and Hamdani & Hariadi, (2022), who stress the importance of digital safeguards in e-Government systems.

The limitations of whistleblowing research, including the lack of direct observation and the potential for social desirability bias, underscore the complexity of studying this phenomenon. Future research is encouraged to utilize a mixed-methods approach to better capture the intricate dynamics influencing whistleblowing. This could provide a more comprehensive understanding of whistleblowing by exploring various organizational contexts and leadership styles, as suggested by Liu et al., (2015); Nayır et al., (2018).

For public institutions, implementing international standards like ISO 37002:2021 and adhering to the G20's principles on whistleblower protection can establish robust ethical frameworks tailored to Indonesia's context. This strategy aims to improve transparency, accountability, and governance.

In essence, fostering an ethical organizational culture, confidential reporting systems, and adhering to international best practices are paramount in enhancing whistleblowing mechanisms. This approach is vital for cultivating integrity within the public sector, essential for curbing corruption and ensuring effective governance.

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