Final Report

Towards a Theoretical Framework Linking the Integrity and Transparency Assessment Index (ITA)

and Whistleblowing Intentions among Local Government Employees in Thailand:

A Mixed Method Approach

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Content

1. Abstract

Project Code: MRG6180058

Project Title: Towards a Theoretical Framework Linking the Integrity and Transparency Assessment Index (ITA) and Whistleblowing Intentions among Local Government Employees in Thailand: A Mixed Method Approach

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Abstract: Corruption is a pervasive phenomenon in the public sector in most developing countries. Among the various strategies, 'whistleblowing' is perhaps one of the most vital mechanisms for fighting corruption. However, few studies to date have looked at how organizational characteristics can influence employee whistleblowing. To address this research gap, the present study examined whether organizational integrity—the extent to which local government agencies adhere to integrity and transparency standards and practices—can longitudinally predict employee whistleblowing intentions (both internal and external) and also the psychological processes that underlie this relationship. In so doing, we used the Integrity and Transparency Assessment (ITA) data collected by Thailand's National Anti-Corruption Commission (NACC) as a proxy measure of organizational integrity. Based on the data obtained from the 365 employees in 40 sub-district administrative organizations (SAOs) in Thailand, our multilevel structural equation modeling (MSEM) analyses revealed that the relationship between organizational integrity (ITA) and whistleblowing intentions were indirect. First, it was found that organizational integrity (measured at Time 1) had a positive effect on employee perceptions of ethical climate (measured at Time 2). Second, the results showed that the effects of organizational integrity and ethical climate on employee whistleblowing intentions were differentially mediated by moral efficacy and public service motivation and psychological safety (all measured at Time 2). Furthermore, content analysis of qualitative data obtained from 20 local government employees revealed significant differences among those in high vs. low performing SAOs. In particular, those in the low performing SAOs indicated the sheer difficulty in reporting internally the observed misconduct (often perpetrated by local politicians) and also the lack of internal mechanisms for blowing the whistle. Employees felt safer to either stay silent or voice concerns through external bodies. Theoretical and practical implications are discussed.

Keyword: Whistleblowing; organizational integrity; ethical climate, psychological safety; moral efficacy; public service motivation

1. บทคัดย่อ

ในปัจจุบันการทุจริตคอร์รัปชันมีความซับซ้อนแยบยลมากยิ่งขึ้นและเป็นการยากที่จะตรวจสอบ จาก หลากหลายมาตรการที่นานาประเทศได้นำมาใช้ในการปราบปรามการทุจริต พบว่าการแจ้งเบาะแส หรือ "Whistleblowing" เป็นกลไกสำคัญอย่างหนึ่งที่จะช่วยต่อต้านการทุจริตได้อย่างมีประสิทธิผล อย่างไรก็ตาม ในปัจจุบันยังมีงานวิจัยค่อนข้างน้อยที่ศึกษาปัจจัยลักษณะองค์กรที่ส่งผลต่อความคิดของบุคคลที่จะออกมา แจ้งเบาะแส ในงานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาอิทธิพลของจริยธรรมขององค์กร (Organizational integrity) ที่มีต่อความคิดของบุคคลที่จะออกมาแจ้งเบาะแสทั้งภายในและภายนอกองค์กร รวมทั้งต้องการ ศึกษากระบวนการทางจิตวิทยาที่สามารถอธิบายความสัมพันธ์ดังกล่าว ซึ่งในงานวิจัยนี้ผู้วิจัยใช้คะแนนการ ประเมินระดับคุณธรรมและความโปร่งใสในการดำเนินงานของหน่วยงานภาครัฐ (Integrity and transparency Assessment: ITA) เพื่อสะท้อนระดับจริยธรรมขององค์กร (Organizational integrity) ผู้วิจัย ได้นำข้อมูลสำรวจความคิดเห็นพนักงานส่วนตำบล 365 ราย จาก อบต. 40 แห่ง มาทำการวิเคราะห์สมการ โครงสร้างแบบพหุระดับ (MSEM) พบว่าจริยธรรมขององค์กร (Organizational integrity) ส่งผลทางอ้อมต่อ ความคิดของบุคคลที่จะออกมาแจ้งเบาะแส ประการแรก ผู้วิจัยพบว่า คะแนน ITA ของ อบต. (เก็บข้อมูลใน ช่วงเวลาที่ 1) ส่งผลทางบวกต่อบรรยากาศทางจริยธรรมขององค์กร (Ethical climate) (เก็บข้อมูลใน ช่วงเวลาที่ 2) ประการที่สอง ผู้วิจัยพบว่า อิทธิพลของคะแนน ITA และบรรยากาศทางจริยธรรมของ อบต. ส่งทางบวกต่อความคิดที่จะออกมาแจ้งเบาะแสทั้งภายในและภายนอกองค์กร ผ่านปัจจัยแรงจูงใจในการ ปฏิบัติงานเพื่อสาธารณะ (Public Service Motivation) ปัจจัยความสามารถในการตัดสินใจเชิงจริยธรรม (Moral Efficacy) และปัจจัยความรู้สึกปลอดภัยที่จะแสดงความคิดเห็น (Psychological Safety) (เก็บข้อมูล ปัจจัยทั้งหมดในช่วงเวลาที่ 2) นอกจากนั้น ผลการวิจัยเชิงคุณภาพที่ได้จากการสัมภาษณ์พนักงานส่วน ตำบลจำนวน 20 รายสะท้อนความแตกต่างระหว่าง อบต. ที่มีคะแนนผลการประเมิน ITA ในระดับสูงและต่ำ โดยพนักงานใน อบต. ที่มีคะแนนผลการประเมิน ITA ในระดับต่ำประสบความยากลำบากในการออกมาแจ้ง เบาะแสการทุจริตซึ่งมักจะเกิดจากนักการเมืองท้องถิ่นและในปัจจุบันพบว่ายังไม่มีช่องทางในการแจ้ง เบาะแสเป็นการภายใน ดังนั้น พนักงาน อบต. จึงเลือกที่จะปิดปากเงียบหรือไม่ก็ออกไปแจ้งเบาะแสผ่าน ช่องทางภายนอกต่างๆ ในท้ายงานวิจัยนี้ ผู้วิจัยได้กล่าวถึงนัยสำคัญของงานวิจัยทั้งในเชิงการนำไปปฏิบัติ และในเชิงทฤษฎี

2. Executive summary

Corruption is a common reality of organizational life in most developing countries and is a particularly pervasive and chronic problem in the public sector (Shleifer & Vishny, 1993). While corruption is subject to differing remedial approaches (Doig & Riley, 1998; UNDP, 1997; World Bank, 1997), 'whistleblowing' is proclaimed to be one of the most vital strategies for combating corruption (Brown, 2013; Dyck, Morse, & Zingales, 2010; Miceli, Near, & Dworkin, 2013; Patel, 2003). Indeed, corruption is a hidden crime and any bit of information from parties involved is desperately needed for an effective investigation. For example, Dyck et al. (2010) reported that, among the 243 corporate frauds in the US, it was the stakeholders, employees and auditors who blew the whistle in 17 percent, 12 percent, and 10 percent of all the cases, respectively. Interestingly, a recent corruption case involving a nationwide embezzlement of public funds in Thailand was exposed by a student intern (Laohong, 2018).

Although organizational misconduct could be exposed by both insiders and outsiders (Culiberg & Mihelič, 2017), the present study focuses on organizational members as 'potential' whistleblowers. Specifically, we focus on the employee's intentions to blow the whistle both internally and externally (Miceli & Near, 1985; Miceli, Near, & Dworkin, 2008). Indeed, employees may choose to go up the chain of command to report misconduct or they may choose to do so to external parties such as an anti-corruption body or the media. Past research indicates that such decisions likely depend on several situational factors including the seriousness of the misconduct and also credibility of the target authorities (Culiberg & Mihelic, 2017).

The present study aims to contribute to the current literature by examining the virtuous impact of organizational integrity, defined as the extent to which the organization and its agents engage in standards and practices that adhere to sound moral values such as being honest and fair, and can be depended upon to act consistently with those values (Mayer, Davis, & Schoorman, 1995). We propose that organizational integrity constitutes a 'formal' organizational context that will subsequently promote ethical climate—shared perceptions that employees hold concerning ethical procedures and policies which exist in their organizations (Victor & Cullen, 1988). Specifically, we ask whether organizational integrity (measured at Time 1) could longitudinally predict employees' perceptions of ethical climate as well as their willingness to blow the whistle (measured at Time 2). Furthermore, we propose that employees' moral efficacy, public service motivation (PSM) and perceptions of psychological safety will mediate the effect of ethical climate and whistleblowing intentions. Specifically, moral efficacy refers to individuals' beliefs in their abilities to deal positively with ethical

issues that arise at work and to overcome obstacles to developing and implementing ethical solutions to ethical dilemmas (May, Luth, & Schwoerer, 2014), whereas public service motivation (PSM) refers to a person's enduring desire to do good for others and society (Perry & Hondeghem, 2008). Finally, psychological safety refers to the extent to which employees believe that they can show and express themselves to upper level management without fear of negative consequences (Edmondson, 1999; Morrison & Milliken, 2000). Thus, we argued that employees are more likely to report organizational misconduct when they feel psychologically safe to do so; when they believe in their own ability to deal with a moral dilemma; and when they have a high motivation to protect the public interests. Whereas recent researchers in the whistleblowing literature have examined the roles of psychological safety (Liu, Liao, & Wei, 2015) and PSM (Caillier, 2017; Cho & Song, 2015), we still know little whether they could be influenced by organizational integrity and ethical climate. Furthermore, as Culiberg and Mihelic (2017) noted, researchers have yet to investigate whether moral efficacy could provide another explanation for why individuals choose to whistleblow.

To achieve these research goals, we used the 2017's Integrity and Transparency Assessment (ITA) data collected by Thailand's National Anti-Corruption Commission (NACC) as a proxy measure of organizational integrity. Although several countries such as South Korea (ACRC, 2017) have collected similar data to assess the very integrity of their government agencies, we are not aware of any study that has attempted to shed light on their potential virtuous effect on the employee's attitudes and behaviors. These ITA data were matched with survey data collected from 365 employees in 40 sub-district administrative organizations (SAOs) in Songkla Province, Thailand. Multilevel structural equation modeling (MSEM) was used for the quantitative analysis. Our hypotheses were partially supported. Specifically, at the organizational level of analysis, organizational integrity measured at Time 1 could predict perceptions of ethical climate measured at Time 2. Ethical climate was also found to be positively related to collective perceptions of psychological safety and moral efficacy but did not correlate significantly with PSM or whistleblowing intentions. However, at the individual level of analysis, we did find that individual perceptions of ethical climate were positively related perceptions of psychological safety, moral efficacy and PSM. These variables in turn were differentially related to internal and external whistleblowing intentions. In particular, moral efficacy, PSM and psychological safety were all positively related to external whistleblowing intentions, whereas only psychological safety was positively related to internal whistleblowing.

In terms of the qualitative analysis, the ITA data were used to identity 5 high performing vs. low performing SAOs. In-depth interviews were conducted from 20 employees (4 from each SAO).

Semi-structured interviews were used to obtain the data. Pre-determined themes were primarily used (deductive approach) but other themes that emerged from the interviews (inductive approach) were also used to complement the results from the quantitative analysis. Content analysis of qualitative data obtained from 20 local government employees revealed significant differences among those in high vs. low performing SAOs. In particular, those in the low performing SAOs indicated the sheer difficulty in reporting internally the observed misconduct (often perpetrated by local politicians) and also the lack of internal mechanisms for blowing the whistle. Employees felt safer to either stay silent or voice concerns through external bodies.

3. Objectives

(1) To examine whether the Integrity and Transparency Assessment (ITA) scores obtained from the Thai NACC could longitudinally predict perceptions of ethical climate and, subsequently, whistleblowing intentions among local government employees in Thailand.

(2) To investigate whether psychological safety, moral efficacy and PSM will sequentially mediate the relationship between the ITA, perceptions of ethical climate and whistleblowing intentions.

(3) To examine qualitatively the characteristics of high-performing vs. low performing local governments with respect to the extent to which whistleblowing is encouraged or suppressed.

4. Research methodology

4.1 Mixed Method

The present study employed a mixed method approach to address the aforementioned research questions (Gibson, 2017). Mixed methods build on the strengths of both quantitative and qualitative data. Whereas quantitative data are numeric representation of concepts, such as that based on survey scores or rankings or evaluations, qualitative data are those that are orally communicated (e.g., in interviews) or observed and subsequently transcribed into texts. The purpose of qualitative analysis techniques is to make sense of such data by deriving categories and themes that appear in the texts and by describing the relationship among them based on interpretive comparison. It has been indicate that mixed methods are most useful in cases where the goal is to generate greater understanding of the mechanisms underlying quantitative results (Edmondson & McManus, 2007). In particular, this study used a sequential explanatory research design, in which

the quantitative analysis is the primary approach, followed by the qualitative analysis. Note that the results from the quantitative part was used as a criterion for selecting the sample of informants.

4.2 Quantitative Part

Sample and data collection

The study hypotheses were tested using survey data from Sub-district Administrative Organizations (SAOs), which constitute the smallest unit of the local government in the country. We focused on SAOs because the embezzlement of public funds and other forms of corruption are prevalent among the local governments (Haque, 2010; Sopchokchai, 2001) and, as noted by local researchers (Moung-On & Wongpreedee, 2014), are especially pronounced among SAOs. Indeed, the devolution of power to the local government has become a breeding ground for corruption such that the number of corruption-related complaints against the local organizations is significantly higher than other forms of public agencies (Haque, 2010).

Our study sample consisted of 50 SAOs randomly drawn from a population of 92 SAOs located in Songkla province in Thailand. Self-administered questionnaires were hand-distributed to 10 employees in each of the 50 SAOs, totaling 500 questionnaires. These numbers were derived by taking into account the optimal number of observations and cluster size that are appropriate for multilevel modeling (Hox, Maas, & Brinkhuis, 2010), but they are also based on time and cost considerations. Each survey has a personalized letter introducing the recipient to the survey and detailed instructions on how to answer the survey questions. The participants were asked to fill out information regarding perceptions of ethical climate, moral efficacy, PSM, psychological safety and their whistleblowing intentions as well as demographic information. To ensure confidentiality, they were instructed to fold and staple the completed questionnaire, and also to return the completed questionnaire to the researcher directly. A total of 365 usable surveys from 40 SAOs were returned to the researcher, resulting in response rates of 73%. The average number of respondents per SAO was 9 (ranging from 5 to 10) (see Appendix 1).

Archival Data

The present study used the Integrity and Transparency Assessment (ITA) data as a proxy measure of organizational integrity. The Integrity and Transparency Assessment (ITA) has been conducted in 2015, 2018 and 2019 by Thailand's National Anti-Corruption Commission (NACC) to assess the integrity and transparency of all government agencies in five distinct areas including (1) transparency (2) accountability (3) corruption-free perceptions (4) integrity culture and (5) work

integrity. The transparency dimension assesses the undertakings of internal procurements, public disclosure, the extent of civic participation and the handling of grievances. The accountability dimension refers to the extent to which government authorities are responsible for their actions which could affect external constituencies. The corruption-free perceptions measure the extent to which the agency is perceived to be corruption-free. The integrity culture dimension assesses the extent to which organizational members' norms are related to right and wrong in an organization (e.g., zero tolerance for corrupt behavior) and the extent to which anti-corruption and anti-conflict-of-interest practices are enacted and implemented. Lastly, the work integrity dimension measures the extent to which significant civil service components including workplace management, personnel management, budgeting management and job assignments that are based on meritocracy. As such, the ITA not only assesses the current institutional governance practices but also offers prescriptive guidance on what government organizations can do to manage and institutionalize transparency and integrity (see also Hoekstra & Kaptein, 2012).

The ITA assessment scores were derived based on three sources of information: (1) the employees of each government agency (2) the stakeholders who come into contact with each government agency and (3) a formal self-assessment report from each government agency. The final score ranges from 1 to 100 for each government agency. The ITA data used in this present research were those collected in 2017. The lead researcher filed a formal request to the NACC for a complete paper-based dataset of SAOs' ITA scores. For the present sample (40 SAOs), the ITA scores ranged from 51.61 to 92.36, with a sample average of 74.07 (see Appendix 2).

Survey Measures

The survey instrument was administered in the Thai language. Because the original scales were developed in English, back translation (Brislin, 1970) was conducted where the original English versions were translated into Thai and then translated back into English (see Appendix 3). Unless stated otherwise, the scales used for the present research were based on a five-point format where 1 = strongly disagree and 5 = strongly agree. Ethical climate (α = .95) were assessed using six items from Schwepker's (2001) ethical climate scale. This measure was based on a five-point format where 1 = strongly disagree and 7 = strongly agree. Moral efficacy (α = .91) was measured using the 5-item scale developed by Hannah and Avolio (2010). This measure was rated based on strength of confidence ranging from 1 ("not at all confident") to 5 ("totally confident"). Public service motivation (α = .80) was measured with the 5-item global measure adapted from Perry's (1996) 24-item scale. This 5-item scale has been used in several PSM studies (e.g., Belle, 2013; Wright, et al., 2013).

Psychological safety (α = .94) were adopted from the 5-item Psychological Safety Scale developed by Liang et al. (2012). Finally, whistleblowing intentions were measured using the 8-item scales (comprising internal whistleblowing [α = .90] and external whistleblowing [α = .93]) developed by Park and Blenkinsopp (2009). A 5-point Likert-type scale was employed to rate statements that ranged from Not at all (1) to Very Certain (5).

Analytic Procedure

We tested the study hypotheses using multilevel structural equation modeling (MSEM) in Mplus Version 7.2 (Muthén & Muthén, 1998-2012) and used observed (composite) variables as our input for the analysis. MSEM has the ability to model multivariate and clustered data by relying on the strengths of both multi-level modeling (MLM) and conventional SEM (Preacher, Zyphur, & Zhang, 2010). The MSEM approach specifies a measurement model, and two structural models—a within-cluster ("individual-level") and a between-cluster ("organizational-level") structural model. The benefit of using MSEM to test our hypotheses is that it creates latent variables at the within-group level and the between-group level for variables that vary at both levels of analysis (Ryu, 2014). In the current study, this advantage applies to all of our variables except organizational integrity. These variables were measured at the individual level and are nested within organizations, thus they could vary at both the individual (within-organization) and organization (between-organization) levels of analysis. Indeed, emerging research on ethical climate (Shim & Park, 2018), moral efficacy (F.-W. Zhang, et al., 2016), PSM (Shim & Park, 2018) and psychological safety (Koopmann, Lanaj, Wang, Zhou, & Shi, 2016) have provided preliminary evidence that these variables could vary at both levels of analysis. As a result, we are able to examine the relationship between organizational integrity and whistleblowing intentions through the mediating role of organizational ethical climate, moral efficacy, PSM and psychological safety at the organizational level of analysis using only between-group variance. At the same time, we were able to examine the relationship between individual perceptions of ethical climate and whistleblowing intentions and the mediating roles of moral efficacy, PSM and psychological safety at the individual level of analysis, using only within-group variance. Thus, our theoretical model corresponds with the 2-1-1-1 MSEM model discussed by Preacher et al. (2010). As discussed below, we first examined whether our proposed variables, which were observed at Level 1, have sufficient variance to be examined at Level 2. Next, we tested the measurement model using multilevel confirmatory factor analysis (MCFA). Finally, we examined the proposed theoretical model. Several indicators of fit were used, including chi-squared tests, comparative fit index (CFI),

Tucker-Lewis index (TLI), and root mean-square error of approximation (RMSEA) and the level-specific information for the standardized root-mean square residual (SRMR) index. Mplus syntax can be found in Appendix 4.

4.3 Qualitative Part

As discussed, the present study also collected qualitative data gathered from in-depth interviews with employees and managers from selected SAOs. These interviews would provide rich glimpses of employees' perceptions of the underlying characteristics of SAOs that could facilitate or undermine whistleblowing intentions as well as their own attitudes and motivations. Specifically, the survey data (the ITA scores) were used to identify SAOs with differing levels of performance (i.e., 5 TAOs with the highest ITA scores and 5 SAOs with lowest ITA scores). At least 2 participants were drawn from each of the SAOs, totaling 20 participants. Semi-structured interviews were used to obtain the data. Pre-determined themes were primarily used (deductive approach) but other themes that emerged from the interviews (inductive approach) were also used to complement the results from the quantitative analysis.

5. Result

5.1 Quantitative results

Descriptive statistics

As shown in Table 1, about 77% of the respondents are female; more than 80% are college-level graduates and 38.9% were professionals. Most employees had tenure of less than 5 years and 40.5% of employees work in the secretarial office. The result showed that 17.3% of employees have observed corruption in their SAOs. Among these 44.44% decided to blow the whistle to their superiors, whereas 15.87% decided to use external channels (e.g., NACC and PACC).

Table 1 Descriptive Statistics (n = 365)

	Frequency	Percent
Sex		
Men	79	21.6
Women	281	77.0
Missing values	5	1.4
Total	365	100

	Frequency	Percent
Age Groups		
19-30	53	14.5
31-40	148	40.5
41-50	105	28.8
51-60	21	5.8
Missing values	327	89.6
Total	365	100
Education Levels		
Below BA	51	14.0
BA	232	63.6
MA	75	20.5
Missing values	7	1.9
Total	365	100
Tenure (years)		
0-5	129	35.3
6-10	94	25.8
11-15	82	22.5
16-20	8	2.2
Missing values	52	14.2
Total	365	100
Salary (Baht)		
5,000-10,000	37	10.1
10,001-20,000	140	38.4
21,001-30,000	19	5.2
30,001-40,000	5	1.4
40,001-50,000	201	55.1
Missing values	164	44.9
Total	365	100
Jobs		
Secretarial office	148	40.5
Finance	102	27.9

		Frequency	Percent
	Health	4	1.1
	Education	44	12.1
	Civil work	31	8.5
	Others	27	7.4
	Missing values	9	2.5
	Total	365	100
Positions			
	Temp hires	92	25.2
	Formal hires	26	7.1
	Clericals	93	25.5
	Professionals	142	38.9
	Managerial	4	1.1
	Missing values	8	2.2
	Total	365	100
Superior status			
	Yes	74	20.3
	No	284	77.8
	Missing values	7	1.9
	Total	365	100
Talent status			
	Yes	55	15.1
	No	305	83.6
	Missing values	5	1.4
	Total	365	100
Corruption encounter experience			
	Yes	63	17.3
	No	297	81.4
	Missing values	5	1.4
	Total	365	100
Internal whistleblowing experience (Yes, No) (e.g., reporting to superiors)			
	Yes	28	44.44

	Frequency	Percent
No	35	55.56
Total	63	100
External whistleblowing experience (Yes, No) (e.g., reporting to NACC or PACC)		
Yes	10	15.87
No	53	84.13
Total	63	100

Means, Standard Deviations and Bivariate Correlations

Means and standard deviations are reported in Table 2. Variables at the individual level (Level 1) were shown below the diagonal, whereas variables at the organizational level (Level 2) were shown above the diagonal. The results showed that all the study variables were correlated in the predicted directions.

Table 1 Means, Standard Deviations, and Correlations

Variables	Individual Level		1	2	3	4	5	6	7
	Mean	*SD*							
1. Organizational Integrity (ITA)	-	-	-	.49**	.27	.02	.29	.10	.05
2. Ethical Climate	5.06	1.18	-	-	.78**	.20	.68**	.32*	.28
3. Moral Efficacy	3.70	.66	-	.62**	-	.27	.69**	.37*	.40*
4. PSM	3.93	.51	-	.31**	.36**	-	.08	.15	.34*
5. Psychological Safety	3.37	.73	-	.57**	.52**	.17**	-	.50**	.44**
6. Internal Whistleblowing	3.27	.81	-	.30**	.27**	.19**	.31**	-	.77**
7. External Whistleblowing	2.91	.89	-	.27**	.31**	.25**	.27**	.70**	-
Organizational Level	*Mean*		74.07	5.06	3.70	3.93	3.37	3.27	2.91
	SD		10.79	1.18	.66	.51	.73	.81	.89

Note: * $p < .05$, ** $p < .01$; the between-organization correlations are shown above the diagonal and the within-person correlations are shown below the diagonal; $N_{between} = 40$; $N_{within} = 365$.

Data Aggregation and Measurement

In assessing the between-unit variance in the outcome variables, we found that the intraclass correlation coefficients (ICCs) were very low for both internal whistleblowing ($F_{39, 325} = 1.31$, $p > .10$;

ICC=.03) and external whistleblowing intentions (F_{39}, 325 = 1.09, p >.30; ICC=.01). This suggests that employee whistleblowing tends to be an individual's personal decision. Despite the low between-unit variance, we proceeded to test our hypothesized structural model using MSEM because this is most in line with our hypotheses. We acknowledge, however, that this may limit our ability to detect significant results at Level 2.

In order to assess whether ethical climate, moral efficacy, PSM and psychological safety could be examined at the organizational level, it is necessary to demonstrate both between-unit disagreement and within-units agreement (Klein, Dansereau, & Hall, 1994). The study used the intraclass correlation coefficients (ICC1 and ICC2) to assess between-unit disagreement and interrater agreement (rwg) to assess within-unit agreement. Specifically, we found support for between-organizational variances in ethical climate (F_{39}, 325 = 2.41, p <.001; ICC1=.13; ICC2=.59; the median rwg (j) =.94), moral efficacy (F_{39}, 325 = 1.99, p <.001; ICC1=.10; ICC2=.50; the median rwg (j) =.95), PSM (F_{39}, 325 = 2.16, p <.001; ICC1=.11; ICC2=.54; the median rwg (j) =.95), and psychological safety (F_{39}, 325 = 2.18, p <.001; ICC1=.12; ICC2=.54; the median rwg (j) =.94). These results suggest that it is appropriate to examine these variables at both levels of analysis.

In terms of the measurement of the constructs, we conducted a series of multilevel CFA. The results showed that the hypothesized model comprising 12 factors (6 at each level of analysis) provided an acceptable fit to the data (χ^2 = 1,616.256, df = 724, p < .001; RMSEA = .058; CFI = .91; TLI = .90) and the SRMR was within .04 and between 0.25. However, upon inspecting the factor loadings of each variable, it was found that, at the between-unit level, Item 4 of the internal whistleblowing measure as well as Item 3 and Item 4 of the external whistleblowing measure did not load significantly on their constructs. Thus, we ran an alternative model by removing these non-significant items. The results showed that this new model had an acceptable fit to the data (χ^2 = 1,231.482, df = 568, p < .001; RMSEA = .057; CFI = .93; TLI = .92) and the SRMR was within .04 and between 0.17. Furthermore, the factor loadings were all above .60 and significant at both levels of analysis. The composite variables, which were used as the input for the MSEM analysis, were based on this multilevel CFA model. Descriptive statistics, bivariate correlations, means and standard deviations are reported in Table 1. Variables at the individual level (Level 1) were shown below the diagonal, whereas variables at the organizational level (Level 2) were shown above the diagonal

Hypothesis Testing

Figure 1 displays the results of our analysis. The figure is separated into two parts to show effects partitioned at the organizational level and individual level of analysis (see Appendix). All paths

in the model were freed and tested simultaneously (56 parameters, df = 0). This saturated model thus yields a perfect fit.

In support of hypothesis 1, we found a positive relationship between organizational integrity (measured at Time 1) and perceptions of ethical climate (measured at Time 2) at the organizational level (β = .66, p < .01). This could explain about 46% of the variance in ethical climate (based on the pseudo R-square). However, ethical climate was not related significantly to internal whistleblowing intentions (β = -.00, p > .10) and external whistleblowing intentions (β = -.00, p > .10), failing to support Hypothesis 2. Furthermore, it was found that ethical climate was positively related to moral efficacy (β = 1.17, p < .01) and psychological safety (β = 1.08, p < .001). Ethical climate could explain about 94 and 81 percent of the variance in moral efficacy and psychological safety, respectively. However, ethical climate was not significantly related to PSM (β = .18, p > .10). These results provide support to Hypotheses 3 and 7 and fail to support Hypothesis 5. However, because none of these variables was significantly related to internal and external whistleblowing intentions, Hypotheses 4, 6, 8 and 9 were not supported. Although not formally hypothesized, we conducted additional analyses to examine whether ethical climate could mediate the effect of organizational integrity on moral efficacy and psychological safety. As expected, the results showed significant indirect effects of organizational integrity on moral efficacy (.015; SE = .005; 95% confidence interval (CI) [.005, .025]) and psychological safety (.016; SE = .007; 95% CI [.004, .029]).

However, at the individual level of analysis, the results were somewhat different. Specifically, it was found that perceptions of ethical climate was positively related to moral efficacy (β = .57, p < .01), PSM (β = .36, p < .05) and psychological safety (β = .53, p < .001). Overall, ethical climate could explain about 33, 12 and 29 percent of the variance in these variables respectively. These results provide support to Hypotheses 3, 5 and 7. Furthermore, it was found that these three variables were positively and differentially related to internal and external whistleblowing intentions. Specifically, moral efficacy, PSM and psychological safety were all positively related to external whistleblowing intentions (β = .18, p < .05; β = .14, p < .05; β = .14, p < .05, respectively), whereas only psychological safety was positively related to internal whistleblowing (β = .21, p < .01). Together, these variables could explain about 11 and 13 percent of the variance in internal and external whistleblowing intentions, respectively. Our analyses further showed significant indirect effects of perceptions of ethical climate on external whistleblowing intentions via moral efficacy (.084; SE = .028; 95% CI [.029, .139]), PSM (.040; SE = .018; 95% CI [.004, .075]), and psychological safety (.061; SE = .031; 95% CI [.001, .122]). In addition, the results showed significant indirect effects of perceptions of

ethical climate on internal whistleblowing intentions via psychological safety (.082; SE = .030; 95% CI [.023, .141]). These results provide support to Hypotheses 4b, 6b, 8a and 8b.

We conducted additional analyses using several control variables that have been shown to be significant predictors of whistleblowing intentions, including sex, age, education, tenure and whether individuals assume any supervisory role (1 = yes; 0 = no) (Mesmer-Magnus & Viswesvaran, 2005). However, none of these control variables had significant effects on whistleblowing intentions and thus the results are not reported here.

Figure 1 Multilevel structural equation modeling (MSEM) results
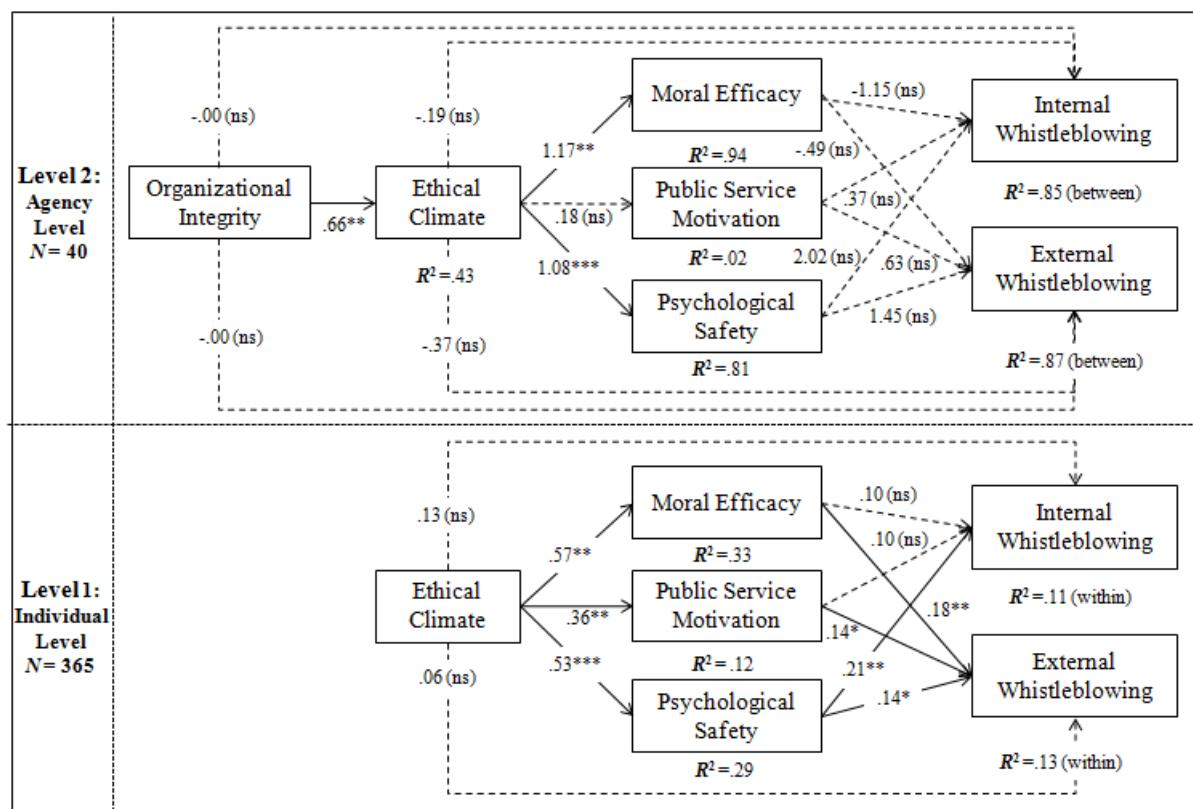
Note: Coefficients are standardized. Dashed lines represent non-significant paths. * $p < .05$; ** $p < .01$, *** $p < .001$

5.3 Qualitative results

As discussed, the survey data (the ITA scores) were used to identify SAOs with differing levels of performance (i.e., 5 TAOs with the highest ITA scores and 5 SAOs with lowest ITA scores). At least 2 participants were drawn from each of the SAOs, totaling 20 participants. Semi-structured interviews were used to obtain the data. The lead researcher sent a formal letter requesting in-depth

interviews with at least two employees in each of the selected SAOs. Most of the interviews were face-to-face. However, four employees from two SAOs were interviewed via telephone. The objectives of this research were explained to the informants before the interview too place. They were specifically informed that their identity and the names of their SAOs will not be disclos ed to anyone.

Table 2 Sample of Interviewees

SAOs	Number of informants	Interview methods	
		Telephone	Face-to-face
SAOs with low ITA scores			
SAO 1	2	-	Yes
SAO 2	2	-	Yes
SAO 3	2	-	Yes
SAO 4	2	-	Yes
SAO 5	2	-	Yes
SAOs with high ITA scores			
SAO 1	2	-	Yes
SAO 2	2	-	Yes
SAO 3	2	-	Yes
SAO 4	2	Yes	-
SAO 5	2	Yes	-
รวม	20	-	-

Selected quotes are shown in Table 3. Full transcripts are available upon request. Table 3 was divided into several sections using pre-determined themes and other emerging themes.

Table 3 Selected quotes from the interviews

Themes	High-performing SAOs	Low-performing SAOs
Types of corruption	*"Corruption here is petty involving mostly trivial matters such as forging documents and failing to comply with specific laws."*	*"I think there are only a few bad apples like the local politicians. Most employees do not want to do corruption things. But sometimes, we have to follow orders from the top. This*

Themes	High-performing SAOs	Low-performing SAOs
	"I think corruption is everywhere in all SAOs. I have never witnessed one myself but there are some rumors about this going around." *"I am not sure if this should be called corruption but sometimes we do wrong things like not complying with the procurement procedures. There are so many new laws and we are unable to keep up with the changes".* *"The state audit office people sometimes come to our SAO. They found no irregularities here. But I am not sure if this is because some people hid it well or not."* *Like other SAOs, people here used SAO property for personal use, such as pickup trucks and computers. Is this corruption?*	*is hard to say. If you want to be here, maybe it is best if we comply".* *"The types of corruption here involves large procurement and auction projects,,,roads, irrigation you name it. This has already become a norm for SAOs.* *"Politicians are the root cause of this".* *"I think all SAOs are corrupt in some ways, more or less. If it is not too much, I think people can accept it."* *"Corruption here is like other places. But we provide lights and roads to the people. I think people are still happy about it as long as they have their fair share of the pie."* *"Politicians own construction companies you know. It is not in their names but you know they own it. Simple façade."* *"If you do not want tto see corruption, maybe you should work elsewhere.*
Organizational culture /climate	*"Our mayors are very ethical and are well loved by his employees and also the local people. We are lucky. Not sure about the next term though. They come and go".* *"We work like a small family here. We can talk about anything. As you see here, we sit along side each other. You want something, you shout.* *Palad SAO is very important. He determines the atmosphere here and he*	*"We work like a family here. This is a small organization. At lunch, we eat together. Sometimes we go drink together. But there is also some hierarchy when it comes to the politicians."* *"The climate here is determined by the past politicians. There are so many conflicts going on. Corruption ruins things. There is a a lack of trust among staff."*

Themes	High-performing SAOs	Low-performing SAOs
	serves as a middle man when it comes to negotiating with the politicians.	*"As they say, it starts at the top. Major corruption starts at the top"* *"I wish we could transfer more easily. I feel stuck here.".*
Internal whistleblowing mechanisms	*"There are no internal whistleblowing mechanisms here. You report it to your Papad if this involves your colleagues. But you report outside if this involves the mayors etc".* *"I was born here and I want to stay here for the rest of my life. If you were me, what would you do?" Do you want to report corruption? I think many people feel the same. They have power over us. But if corruption gets too bad, maybe I will report."* *"The formal channel is the provincial office. You can talk to the people there. Here we care about our safety. I do not want to risk my life."* *"The Palad SAO listens to us.. She is kind and well-respected. I can talk to her about anything. But there is really no corruption here. So I do not know what to report.*	*"You have to understand that our organizations are very small. We have no such mechanisms for internal whistleblowing. You can talk to your boss about it if you want to. But this is not a formal channel. The only possible way is to report to the provincial office. They have a disciplinary committee there. Or you can choose to report directly to NACC."* *"It is impossible for people to report internally here. Most corruption comes from the top. I do not want to say who, you know. I think people should mind their own business. It is really unsafe to be talking about this."* *"There are some cases in the past where internal reporting leads to the disciplinary investigation of procurement employees here. But this also has to do with internal conflicts and revenge. People dislike each other and they report."* *"The formal channel is the provincial office. You can talk to the people there. Here we care about our safety. I do not want to risk my life.*
External whistleblowing	*"Local employees are mostly born in their respective areas. I do not think people want to risk their lives."*	*"The corruption has to be very large for a person to decide to do this or it has to involve large sums of money. I am sure*

Themes	High-performing SAOs	Low-performing SAOs
	You can report to the social justice maintenance office or report it to the provincial office. There is no mechanism here."	*there are some people who are brave enough to do that."* *"It is better not to report to outside agencies. This will bring bad image to us. If you love your organizations, you better report inside".* *"Sometimes we can talk to the local people who are active about this. This is how we avoid being the center of attention. Let others do it. There is no need to risk your lives".*
Whistleblowing knowledge	*"Yes, we really lack the knowledge on this. Maybe there could be some kind of training. The whole organizations need to be trained and informed."*	*"We are never trained on this. Maybe it is not that important to us. There are so many things to do here. It is already difficult enough to finish day to day jobs."*

Content analysis of the qualitative data revealed significant differences among those in high vs. low performing SAOs. There appears to be less corruption in high-performing SAOs. Most corruption acts are trivial. In contrast, in low-performing SAOs, there are reports of 'corruption from the top'. This generally involves the elected politicians who have something to do with construction or procurement companies that win auctions with the local governments. In terms of the organizational climate, the results showed that mayors and Palad SAOs play important roles in determining the atmosphere in the SAOs. Among the low-performing SAOs, there are reports of mistrust and interpersonal conflict among employees. The results regarding whistleblowing showed similar results for both high- and low-performing SAOs. In particular, there are no specific mechanism for reporting internally. Most of the informants indicated that they can speak with their superiors about any irregularities but they also expressed concerns about their own physical safety and welfare. It is a known fact that the transfer of local employees are entirely dependent upon the mayors of the original and destination organizations and thus it can be very difficult for employees to challenge the authorities of local mayors and expect to be transferred peacefully to another organization. This may partly explain the general difficulty in reporting internally. However, employees in high-performing SAOs appeared to be more willingness to speak about with their superiors because it felt safe to do

so. Furthermore, the results showed that reporting externally can also be burdensome and will only be resorted to when the damage caused by corruption acts are very high and when they involve the mayors. Employees felt safer to either stay silent or voice concerns through external bodies. The informants also indicated that these whistleblowers must also be brave but some informants from the low-performing SAOs also indicated that this likely has to do with the personal conflict between the reporters and the politicians and revenge rather than the actions that grow out of conscience or morality. Regardless of the differences in both groups of SAOs, employees generally agreed that they lack the knowledge of how to report it, let alone the burden of proof and the psychological costs that one has to bear, should one decide to blow the whistle,

6. Conclusion and Discussion

These findings have important implications for our findings. Transparency is becoming a legal mandate by the public that dictates how government should act towards their stakeholders including their employees. Whereas past research has theorized about the importance of integrity and transparency in conducting government business (Ball, 2009; Silverman, 2000), our study provides empirical evidence regarding the virtuous role of organizational integrity in predicting employees' whistleblowing intentions. Our use of the Integrity and Transparency Assessment (ITA) survey data —an index developed by Thailand's National Anti-Corruption Commission (NACC)—also provides preliminary evidence about the utility of using government integrity and transparency survey data in conducting organizational research.

Our study also advances whistleblowing research by relying on multiple theoretical lenses to shed light on the underlying psychology of potential whistleblowers including social learning theory (Bandura, 1986), the person-organization (PO) fit perspective (Kristof-Brown, et al., 2005) and organizational trust research (Mayer, et al., 1995). As the findings (both quantitative and qualitative) showed, we found that psychological safety plays an important role in predicting both internal and external whistleblowing intentions. This finding confirms previous research about the importance of creating a work environment where employees can trust and feel safe to voice their concerns without fears of potential backlashes and retaliation (Culiberg & Mihelič, 2017; Keil, et al., 2010; Mesmer-Magnus & Viswesvaran, 2005). In fact, when psychological safety is high, employees may feel that their concerns will not be taken lightly by organizational authorities and that they could make a difference. Furthermore, it is plausible that, in such a setting, the whistleblowers' actions could be regarded by others as noteworthy, if not praiseworthy (Berry, 2004).

It is also interesting to observe that psychological safety, moral efficacy and PSM were all predictive of whistleblowing intentions. This suggests that external whistleblowing could be perceived by employees as a high-cost strategy. Arguably, when considering whistleblowing externally, employees may face a series of moral dilemmas. As external whistleblowing could be regarded a direct defiance of organizational authorities, employees may fear being retaliated as a result of their actions. In the process, employees also may second-guess themselves as to whether it is a morally right decision to report to outside parties as their actions may harm their organization. Furthermore, employees they may weigh the costs of how their actions will ultimately benefit themselves vs. the public to which they are accountable. As such, we believe that the decision to whistleblow externally could be accompanied by a number of ambivalent feelings and second thoughts on the whistleblower's part, which therefore requires the person to have a firm conviction, strength of purpose and considerable courage. Thus, it is important to acknowledge that employees' willingness to act in a manner that is at odds with organizational norms comes with great personal costs and, therefore, it is important for organization to continually develop moral awareness and instill noble purpose in their employees.

Our use of MSEM also contributes to the literature as it allows us to isolate the organization-level relationships from the individual-level relationships, which enables us to advance knowledge and clarify the nature of the multilevel relationships between organizational characteristics and subordinate attitudes and outcomes. In line with emerging research on psychological safety (Koopmann, et al., 2016), PSM (Shim & Park, 2018) and moral efficacy (F.-W. Zhang, et al., 2016), our work confirms that these variables could operate at the organizational levels. This suggests that through a collective sensemaking process (i.e., sharing the meaning of work and interacting with other members in the same organizations), government employees in the same organizations might have similar levels of psychological safety, PSM and moral efficacy. Note however, that ethical climate did not correlate significantly with collective PSM, thus failing to confirm the result reported by Shim and Park (2018).

The findings from this present research has several important implications for the administration of local organizations in Thailand. Obviously, it is important for the local people to elect politicians who are ethical in their track records. Election of corrupt politicians can have long term detrimental effects on the SAOs, the local people and also on the employees in particular. Palad SAOs or Chief SAOs can play an important role to compensate for this as they serve as a bridge that connect the local operations with the goals assigned by the politicians. Secondly, it is important

for the department of local administration (DOLA), Ministry of Interior to consider revising the current local personnel administration acts so that clauses on protection against unfair work practices could be included. This may also involve imposing certain penalties on the local politicians who mistreated the employees who whistleblow. Third, it is important for the government to continue to use the ITA for monitoring the governance climates in the local government organizations. The ITA serves as least two purposes: creating accountability through the use of KPIs and informing these organizations about what needs to be done to enhance the governance in their organizations. Lastly, it is important to hire those with high moral efficacy and PSM; these individuals with not just standby when they observe misconduct. However, as our findings showed organizational leaders can play an important role in cultivating these moral values in their employees. As one of the informants indicated, yes, it starts from the top.

Study Limitations

Despite these findings, our current research has several limitations that need to be acknowledged. First, although we were able to measure our study variables at different time points, the cross sectional nature of our study design does not allow us to make inferences about causality of the study variables. However, the fact that our findings are confirmed in both quantitative and qualitative analyses provided us with more confidence about the soundness of the findings. Secondly, as noted earlier, the between-group variance in our outcome variables were very low, which may have prevented us from detecting significant results. Although this could very well be due to the fact that whistleblowing is likely an individual choice (hence, there should not be large variability at the organizational level), we acknowledge that the non-significant findings could be a consequence of our research design. Future research may wish to collect a larger sample (i.e., larger group size).

Conclusion

The present research shows that organizational integrity (measured at Time 1) are positively related to perceptions ethical climate, in turn, promoting employee perceptions of psychological safety, moral efficacy and PSM (all measured at Time 2). More importantly, the result shows that these variables could have a trickle-down effect on employees' intentions to report organizational misconduct. These findings were supported by the qualitative data obtained from the employees in high-performing and low-performing SAOs. We hope that our study findings will stimulate future research in this important area.

7. Appendices

Appendix 1

Number of employees from each SAO

No.	SAO Names	Frequency	Percentage
1	อบต. พิจิตร อ.นาหม่อม	10	2.7
2	อบต. นาหม่อม อ. นาหม่อม	10	2.7
3	อบต. ทุ่งขมิ้น อ.นาหม่อม	10	2.7
4	อบต. คลองหรั่ง อ.นาหม่อม	10	2.7
5	อบต. คลองเปี้ย อ.จะนะ	7	1.9
6	อบต. จะโหนง อ.จะนะ	7	1.9
7	อบต. ป่าขิง อ.จะนะ	10	2.7
8	อบต. นาหว้า อ.จะนะ	10	2.7
9	อบต. คู อ.จะนะ	10	2.7
10	อบต. แค อ.จะนะ	10	2.7
11	อบต. ทุ่งใหญ่ อ.หาดใหญ่	10	2.7
12	อบต. ท่าข้าม อ.หาดใหญ่	5	1.4
13	อบต. น้ำขาว อ.จะนะ	10	2.7
14	อบต. ปาง อ.นาทวี	10	2.7
15	อบต. ปลักหนู อ.นาทวี	9	2.5
16	อบต.คลองทราย อ.นาทวี	10	2.7
17	อบต.นาหมอศรี อ.นาทวี	10	2.7
18	อบต. ขุนตัดหวาย อ.จะนะ	10	2.7
19	อบต. ท่าหมอไทร อ.จะนะ	8	2.2
20	อบต. ทำนบ อ. สิงหนคร	10	2.7
21	อบต. รำแดง อ. สิงหนคร	9	2.5
22	อบต. วัดขนุน อ. สิงหนคร	9	2.5
23	อบต. บางเขียด อ. สิงหนคร	7	1.9
24	อบต. ปากรอ อ. สิงหนคร	10	2.7
25	อบต. ป่าขาด อ. สิงหนคร	7	1.9
26	อบต. ชิงโค อ. สิงหนคร	7	1.9
27	อบต. เกาะยอ อ. เมือง	9	2.5

No.	SAO Names	Frequency	Percentage
28	อบต. ท่าหิน อ. สทิงพระ	10	2.7
29	อบต. คูขุด อ. สทิงพระ	7	1.9
30	อบต. จะทิ้งพระ อ. สทิงพระ	10	2.7
31	อบต. บ่อดาน อ. สทิงพระ	9	2.5
32	อบต. บ่อแดง อ. สทิงพระ	10	2.7
33	อบต. วัดจันทร์ อ. สทิงพระ	10	2.7
34	อบต. กระดังงา อ. สทิงพระ	10	2.7
35	อบต. คลองรี อ. สทิงพระ	10	2.7
36	อบต. สนามชัย อ. สทิงพระ	9	2.5
37	อบต. ดีหลวง อ. สทิงพระ	10	2.7
38	อบต. ชุมพล อ. สทิงพระ	7	1.9
39	อบต. พะตง อ. สทิงพระ	10	2.7
40	อบต. พังลา อ. สทิงพระ	9	2.5
	Total	365	100

Appendix 2

Year 2017's ITA data for Sundistrict Administrative Organizations (SAOs) in Songkla Province

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
1	1	65	73	58	87	76	70	80
1	2	65	73	58	87	76	70	80
1	3	65	73	58	87	76	70	80
1	4	65	73	58	87	76	70	80
1	5	65	73	58	87	76	70	80
1	6	65	73	58	87	76	70	80
1	7	65	73	58	87	76	70	80
1	8	65	73	58	87	76	70	80
1	9	65	73	58	87	76	70	80
1	10	65	73	58	87	76	70	80
2	11	35	77	83	86	60	78	78
2	12	35	77	83	86	60	78	78
2	13	35	77	83	86	60	78	78
2	14	35	77	83	86	60	78	78
2	15	35	77	83	86	60	78	78
2	16	35	77	83	86	60	78	78
2	17	35	77	83	86	60	78	78
2	18	35	77	83	86	60	78	78
2	19	35	77	83	86	60	78	78
2	20	35	77	83	86	60	78	78
3	21	104	65	72	74	73	41	58
3	22	104	65	72	74	73	41	58
3	23	104	65	72	74	73	41	58
3	24	104	65	72	74	73	41	58
3	25	104	65	72	74	73	41	58
3	26	104	65	72	74	73	41	58
3	27	104	65	72	74	73	41	58

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
3	28	104	65	72	74	73	41	58
3	29	104	65	72	74	73	41	58
3	30	104	65	72	74	73	41	58
4	31	48	75	83	78	64	72	78
4	32	48	75	83	78	64	72	78
4	33	48	75	83	78	64	72	78
4	34	48	75	83	78	64	72	78
4	35	48	75	83	78	64	72	78
4	36	48	75	83	78	64	72	78
4	37	48	75	83	78	64	72	78
4	38	48	75	83	78	64	72	78
4	39	48	75	83	78	64	72	78
4	40	48	75	83	78	64	72	78
5	41	26	79	78	85	76	77	81
5	42	26	79	78	85	76	77	81
5	43	26	79	78	85	76	77	81
5	44	26	79	78	85	76	77	81
5	45	26	79	78	85	76	77	81
5	46	26	79	78	85	76	77	81
5	49	26	79	78	85	76	77	81
6	51	30	78	71	89	85	72	75
6	52	30	78	71	89	85	72	75
6	53	30	78	71	89	85	72	75
6	54	30	78	71	89	85	72	75
6	55	30	78	71	89	85	72	75
6	56	30	78	71	89	85	72	75
6	57	30	78	71	89	85	72	75
7	61	29	79	64	91	88	60	92
7	62	29	79	64	91	88	60	92

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
7	63	29	79	64	91	88	60	92
7	64	29	79	64	91	88	60	92
7	65	29	79	64	91	88	60	92
7	66	29	79	64	91	88	60	92
7	67	29	79	64	91	88	60	92
7	68	29	79	64	91	88	60	92
7	69	29	79	64	91	88	60	92
7	70	29	79	64	91	88	60	92
8	71	56	75	68	71	93	51	81
8	72	56	75	68	71	93	51	81
8	73	56	75	68	71	93	51	81
8	74	56	75	68	71	93	51	81
8	75	56	75	68	71	93	51	81
8	76	56	75	68	71	93	51	81
8	77	56	75	68	71	93	51	81
8	78	56	75	68	71	93	51	81
8	79	56	75	68	71	93	51	81
8	80	56	75	68	71	93	51	81
9	81	24	80	76	59	71	70	52
9	82	24	80	76	59	71	70	52
9	83	24	80	76	59	71	70	52
9	84	24	80	76	59	71	70	52
9	85	24	80	76	59	71	70	52
9	86	24	80	76	59	71	70	52
9	87	24	80	76	59	71	70	52
9	88	24	80	76	59	71	70	52
9	89	24	80	76	59	71	70	52
9	90	24	80	76	59	71	70	52
10	91	16	83	88	88	85	67	83

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
10	92	16	83	88	88	85	67	83
10	93	16	83	88	88	85	67	83
10	94	16	83	88	88	85	67	83
10	95	16	83	88	88	85	67	83
10	96	16	83	88	88	85	67	83
10	97	16	83	88	88	85	67	83
10	98	16	83	88	88	85	67	83
10	99	16	83	88	88	85	67	83
10	100	16	83	88	88	85	67	83
11	101	53	80	68	87	90	43	81
11	102	53	80	68	87	90	43	81
11	103	53	80	68	87	90	43	81
11	104	53	80	68	87	90	43	81
11	105	53	80	68	87	90	43	81
11	106	53	80	68	87	90	43	81
11	107	53	80	68	87	90	43	81
11	108	53	80	68	87	90	43	81
11	109	53	80	68	87	90	43	81
11	110	53	80	68	87	90	43	81
12	111	78	71	66	90	90	46	58
12	112	78	71	66	90	90	46	58
12	113	78	71	66	90	90	46	58
12	114	78	71	66	90	90	46	58
12	115	78	71	66	90	90	46	58
13	121	25	79	71	91	80	74	83
13	122	25	79	71	91	80	74	83
13	123	25	79	71	91	80	74	83
13	124	25	79	71	91	80	74	83
13	125	25	79	71	91	80	74	83

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
13	126	25	79	71	91	80	74	83
13	127	25	79	71	91	80	74	83
13	128	25	79	71	91	80	74	83
13	129	25	79	71	91	80	74	83
13	130	25	79	71	91	80	74	83
14	131	77	71	75	84	73	44	74
14	132	77	71	75	84	73	44	74
14	133	77	71	75	84	73	44	74
14	134	77	71	75	84	73	44	74
14	135	77	71	75	84	73	44	74
14	136	77	71	75	84	73	44	74
14	137	77	71	75	84	73	44	74
14	138	77	71	75	84	73	44	74
14	139	77	71	75	84	73	44	74
14	140	77	71	75	84	73	44	74
15	141	135	55	33	85	64	44	56
15	142	135	55	33	85	64	44	56
15	143	135	55	33	85	64	44	56
15	144	135	55	33	85	64	44	56
15	145	135	55	33	85	64	44	56
15	146	135	55	33	85	64	44	56
15	147	135	55	33	85	64	44	56
15	148	135	55	33	85	64	44	56
15	149	135	55	33	85	64	44	56
16	151	17	83	91	89	86	55	85
16	152	17	83	91	89	86	55	85
16	153	17	83	91	89	86	55	85
16	154	17	83	91	89	86	55	85
16	155	17	83	91	89	86	55	85

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
16	156	17	83	91	89	86	55	85
16	157	17	83	91	89	86	55	85
16	158	17	83	91	89	86	55	85
16	159	17	83	91	89	86	55	85
16	160	17	83	91	89	86	55	85
17	161	21	81	70	93	79	78	92
17	162	21	81	70	93	79	78	92
17	163	21	81	70	93	79	78	92
17	164	21	81	70	93	79	78	92
17	165	21	81	70	93	79	78	92
17	166	21	81	70	93	79	78	92
17	167	21	81	70	93	79	78	92
17	168	21	81	70	93	79	78	92
17	169	21	81	70	93	79	78	92
17	170	21	81	70	93	79	78	92
18	171	46	76	61	87	87	67	79
18	172	46	76	61	87	87	67	79
18	173	46	76	61	87	87	67	79
18	174	46	76	61	87	87	67	79
18	175	46	76	61	87	87	67	79
18	176	46	76	61	87	87	67	79
18	177	46	76	61	87	87	67	79
18	178	46	76	61	87	87	67	79
18	179	46	76	61	87	87	67	79
18	180	46	76	61	87	87	67	79
19	181	84	71	47	90	87	51	82
19	182	84	71	47	90	87	51	82
19	183	84	71	47	90	87	51	82
19	185	84	71	47	90	87	51	82

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
19	186	84	71	47	90	87	51	82
19	187	84	71	47	90	87	51	82
19	188	84	71	47	90	87	51	82
19	190	84	71	47	90	87	51	82
20	191	119	62	54	65	75	44	71
20	192	119	62	54	65	75	44	71
20	193	119	62	54	65	75	44	71
20	194	119	62	54	65	75	44	71
20	195	119	62	54	65	75	44	71
20	196	119	62	54	65	75	44	71
20	197	119	62	54	65	75	44	71
20	198	119	62	54	65	75	44	71
20	199	119	62	54	65	75	44	71
20	200	119	62	54	65	75	44	71
21	201	131	57	36	56	86	49	61
21	202	131	57	36	56	86	49	61
21	203	131	57	36	56	86	49	61
21	204	131	57	36	56	86	49	61
21	206	131	57	36	56	86	49	61
21	207	131	57	36	56	86	49	61
21	208	131	57	36	56	86	49	61
21	209	131	57	36	56	86	49	61
21	210	131	57	36	56	86	49	61
22	212	62	74	61	86	81	70	74
22	213	62	74	61	86	81	70	74
22	214	62	74	61	86	81	70	74
22	215	62	74	61	86	81	70	74
22	216	62	74	61	86	81	70	74
22	217	62	74	61	86	81	70	74

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
22	218	62	74	61	86	81	70	74
22	219	62	74	61	86	81	70	74
22	220	62	74	61	86	81	70	74
23	221	110	64	43	68	79	48	83
23	222	110	64	43	68	79	48	83
23	224	110	64	43	68	79	48	83
23	226	110	64	43	68	79	48	83
23	227	110	64	43	68	79	48	83
23	228	110	64	43	68	79	48	83
23	230	110	64	43	68	79	48	83
24	231	108	64	56	66	78	46	74
24	232	108	64	56	66	78	46	74
24	233	108	64	56	66	78	46	74
24	234	108	64	56	66	78	46	74
24	235	108	64	56	66	78	46	74
24	236	108	64	56	66	78	46	74
24	237	108	64	56	66	78	46	74
24	238	108	64	56	66	78	46	74
24	239	108	64	56	66	78	46	74
24	240	108	64	56	66	78	46	74
25	241	139	52	24	70	68	43	63
25	242	139	52	24	70	68	43	63
25	245	139	52	24	70	68	43	63
25	246	139	52	24	70	68	43	63
25	247	139	52	24	70	68	43	63
25	249	139	52	24	70	68	43	63
25	250	139	52	24	70	68	43	63
26	252	40	76	70	86	85	69	73
26	254	40	76	70	86	85	69	73

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
26	255	40	76	70	86	85	69	73
26	257	40	76	70	86	85	69	73
26	258	40	76	70	86	85	69	73
26	259	40	76	70	86	85	69	73
26	260	40	76	70	86	85	69	73
27	261	71	72	64	61	76	75	88
27	262	71	72	64	61	76	75	88
27	263	71	72	64	61	76	75	88
27	264	71	72	64	61	76	75	88
27	265	71	72	64	61	76	75	88
27	266	71	72	64	61	76	75	88
27	268	71	72	64	61	76	75	88
27	269	71	72	64	61	76	75	88
27	270	71	72	64	61	76	75	88
28	271	28	79	70	93	92	51	88
28	272	28	79	70	93	92	51	88
28	273	28	79	70	93	92	51	88
28	274	28	79	70	93	92	51	88
28	275	28	79	70	93	92	51	88
28	276	28	79	70	93	92	51	88
28	277	28	79	70	93	92	51	88
28	278	28	79	70	93	92	51	88
28	279	28	79	70	93	92	51	88
28	280	28	79	70	93	92	51	88
29	282	126	59	52	62	59	61	62
29	283	126	59	52	62	59	61	62
29	284	126	59	52	62	59	61	62
29	285	126	59	52	62	59	61	62
29	287	126	59	52	62	59	61	62

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
29	289	126	59	52	62	59	61	62
29	290	126	59	52	62	59	61	62
30	291	49	75	66	80	75	85	74
30	292	49	75	66	80	75	85	74
30	293	49	75	66	80	75	85	74
30	294	49	75	66	80	75	85	74
30	295	49	75	66	80	75	85	74
30	296	49	75	66	80	75	85	74
30	297	49	75	66	80	75	85	74
30	298	49	75	66	80	75	85	74
30	299	49	75	66	80	75	85	74
30	300	49	75	66	80	75	85	74
31	301	130	57	56	41	74	48	65
31	302	130	57	56	41	74	48	65
31	303	130	57	56	41	74	48	65
31	304	130	57	56	41	74	48	65
31	305	130	57	56	41	74	48	65
31	306	130	57	56	41	74	48	65
31	307	130	57	56	41	74	48	65
31	308	130	57	56	41	74	48	65
31	310	130	57	56	41	74	48	65
32	311	113	63	57	84	61	59	58
32	312	113	63	57	84	61	59	58
32	313	113	63	57	84	61	59	58
32	314	113	63	57	84	61	59	58
32	315	113	63	57	84	61	59	58
32	316	113	63	57	84	61	59	58
32	317	113	63	57	84	61	59	58
32	318	113	63	57	84	61	59	58

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
32	319	113	63	57	84	61	59	58
32	320	113	63	57	84	61	59	58
33	321	11	84	83	64	95	93	85
33	322	11	84	83	64	95	93	85
33	323	11	84	83	64	95	93	85
33	324	11	84	83	64	95	93	85
33	325	11	84	83	64	95	93	85
33	326	11	84	83	64	95	93	85
33	327	11	84	83	64	95	93	85
33	328	11	84	83	64	95	93	85
33	329	11	84	83	64	95	93	85
33	330	11	84	83	64	95	93	85
34	331	51	75	69	85	67	82	78
34	332	51	75	69	85	67	82	78
34	333	51	75	69	85	67	82	78
34	334	51	75	69	85	67	82	78
34	335	51	75	69	85	67	82	78
34	336	51	75	69	85	67	82	78
34	337	51	75	69	85	67	82	78
34	338	51	75	69	85	67	82	78
34	339	51	75	69	85	67	82	78
34	340	51	75	69	85	67	82	78
35	341	122	60	45	47	85	46	78
35	342	122	60	45	47	85	46	78
35	343	122	60	45	47	85	46	78
35	344	122	60	45	47	85	46	78
35	345	122	60	45	47	85	46	78
35	346	122	60	45	47	85	46	78
35	347	122	60	45	47	85	46	78

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
35	348	122	60	45	47	85	46	78
35	349	122	60	45	47	85	46	78
35	350	122	60	45	47	85	46	78
36	351	92	69	78	65	81	54	61
36	352	92	69	78	65	81	54	61
36	353	92	69	78	65	81	54	61
36	355	92	69	78	65	81	54	61
36	356	92	69	78	65	81	54	61
36	357	92	69	78	65	81	54	61
36	358	92	69	78	65	81	54	61
36	359	92	69	78	65	81	54	61
36	360	92	69	78	65	81	54	61
37	361	99	68	64	84	66	48	76
37	362	99	68	64	84	66	48	76
37	363	99	68	64	84	66	48	76
37	364	99	68	64	84	66	48	76
37	365	99	68	64	84	66	48	76
37	366	99	68	64	84	66	48	76
37	367	99	68	64	84	66	48	76
37	368	99	68	64	84	66	48	76
37	369	99	68	64	84	66	48	76
37	370	99	68	64	84	66	48	76
38	371	134	56	4	46	77	47	58
38	372	134	56	4	46	77	47	58
38	373	134	56	4	46	77	47	58
38	374	134	56	4	46	77	47	58
38	375	134	56	4	46	77	47	58
38	377	134	56	4	46	77	47	58
38	378	134	56	4	46	77	47	58

SAO ID	Personal ID	ITA Rank	Overall score	ITA Dimensions				
				Transparency	Accountability	Corruption	Culture	Integrity
39	381	50	69	74	64	86	49	64
39	382	50	69	74	64	86	49	64
39	383	50	69	74	64	86	49	64
39	384	50	69	74	64	86	49	64
39	385	50	69	74	64	86	49	64
39	386	50	69	74	64	86	49	64
39	387	50	69	74	64	86	49	64
39	388	50	69	74	64	86	49	64
39	389	50	69	74	64	86	49	64
39	390	50	69	74	64	86	49	64
40	391	66	73	58	81	89	56	81
40	392	66	73	58	81	89	56	81
40	393	66	73	58	81	89	56	81
40	395	66	73	58	81	89	56	81
40	396	66	73	58	81	89	56	81
40	397	66	73	58	81	89	56	81
40	398	66	73	58	81	89	56	81
40	399	66	73	58	81	89	56	81
40	400	66	73	58	81	89	56	81

Appendix 3: STUDY MEASURES

Ethical Climate

1. My organization has a formal, written code of ethics.

2. My organization strictly enforces a code of ethics.

3. My organization has policies with regard to ethical behavior.

4. My organization strictly enforces policies regarding ethical behavior.

5. Top management in my organization has let it be known in no uncertain terms that unethical behaviors will not be tolerated.

6. If an employee in my organization is discovered to have engaged in unethical behavior that results in primarily personal gain, he or she will be promptly reprimanded.

Moral Efficacy

1. I am confident that I can determine what needs to be done when I face an ethical decision.

2. I am confident that I can confront others who behave unethically to resolve the issue.

3. I am confident that I can…………………………………………………

4. I am confident that I can…………………………………………………

5. I am confident that I can…………………………………………………

Note: Some items are not shown here for propriety reasons.

Public Service Motivation (Self-rated)

1. Meaningful public service is very important to me.

2. I am often reminded by daily events about how dependent we are on one another.

3. Making a difference in society means more to me than personal achievements.

4. I am prepared to make sacrifices for the good of society.

5. I am not afraid to go to bat for the rights of others even if it means I will be ridiculed.

Psychological Safety

1. In my organization, I can express my true feelings regarding my job.

2. In my organization, I can freely express my thoughts.

3. In my organization, expressing your true feelings is welcomed.

4. Nobody in my organization will pick on me even if I have different opinions.

5. I'm worried that expressing true thoughts in my workplace would do harm to myself (R).

Internal Whistleblowing

1. Report it to the appropriate persons within the organization.

2. Tell my supervisor about it.

3. Let upper level of management know about it.

4. Use the reporting channels inside of the organization.

External Whistleblowing

1. Report it to the appropriate authorities outside of the organization.

2. Provide information to outside agencies.

3. Use the reporting channels outside of the organization.

4. Inform the public of it.

Appendix 4

Mplus Syntax (MSEM 2-1-1-1)

```
TITLE: MSEM 2-1-1-1(See Preacher et al.[2010])
DATA:
        FILE = ! Put file name here

VARIABLE:
        NAMES           = Org Extwhis Intwhis PSM Ethicul Moral Safety integ;
        MISSING         = all (-999);
        USEVARIABLES    = Extwhis Intwhis PSM Ethicul Moral Safety integ;
        BETWEEN         = integ;
        !variable with only between group variance
        CLUSTER         = Org;
ANALYSIS:
        TYPE            = TWOLEVEL RANDOM;
MODEL:
        %WITHIN%
                Extwhis Intwhis PSM Ethicul Moral Safety;
                !estimate level 1 residual variance
        Intwhis    on      Safety (bw1);
            Intwhis on      PSM (bw3);
            Intwhis on      Moral(bw5);
            Intwhis on      Ethicul;

            Extwhis on      Safety (bw2);
            Extwhis on      PSM (bw4);
            Extwhis on      Moral (bw6);
            Extwhis on      Ethicul;

            Safety on       Ethicul (aaw1);
            PSM         on      Ethicul (aaw2);
            Moral   on      Ethicul (aaw3);

            Safety WITH     PSM;
            Safety WITH     Moral;
            PSM             WITH    Moral;


        %BETWEEN%
                Extwhis Intwhis PSM Ethicul Moral Safety integ;
                !estimate level 2 variances

            Ethicul on      integ (a1);
            Safety on       integ (a2);
            PSM             on      integ (a3);
            Moral   on      integ (a4);

        Intwhis    on      Safety (bb1);
            Intwhis on      PSM (bb3);
            Intwhis on      Moral(bb5);
            Intwhis         on      Ethicul;
            Intwhis on      integ;

            Extwhis on      Safety (bb2);
            Extwhis on      PSM (bb4);
            Extwhis on      Moral (bb6);
            Extwhis         on      Ethicul;
            Extwhis on      integ;

            Safety on       Ethicul (aab1);
            PSM             on      Ethicul (aab2);
            Moral   on      Ethicul (aab3);

            Safety WITH     PSM;
            Safety WITH     Moral;
            PSM             WITH    Moral;


MODEL CONSTRAINT:
```

```
   NEW(Ind1)(Ind2)(Ind3)(Ind4)(Ind5)(Ind6)(Ind7)(Ind8)(Ind9)
     (Ind10)(Ind11)(Ind12)(Ind13)(Ind14)(Ind15)(Ind16)(Ind17)(Ind18);

     !Between-level mediation
     Ind1=a1*aab1*bb1; !org integrity -climate-safety-internal
     Ind2=a1*aab1*bb2;      !org integrity -climate-safety-external
     Ind3=a1*aab2*bb3;      !org integrity -climate -psm-internal
     Ind4=a1*aab2*bb4;      !org integrity -climate -psm-external
     Ind5=a1*aab3*bb5;      !org integrity -climate -moral-internal
     Ind6=a1*aab3*bb6;      !org integrity -climate -moral- external
     Ind7=a1*aab1; !org integrity -climate -safety
     Ind8=a1*aab2;!org integrity -climate -psm
     Ind9=a1*aab3;!org integrity -climate -moral
     Ind10=aab1*bb1;        !climate -safety-internal
     Ind11=aab2*bb3;        !climate -psm-internal
     Ind12=aab3*bb5;        !climate -moral-internal

     !Within-level mediation

     Ind13=aaw1*bw1;        !climate -safety-internal
     Ind14=aaw1*bw2;        !climate -safety-external
     Ind15=aaw2*bw3;        !climate -psm-internal
     Ind16=aaw2*bw4;        !climate -psm-external
     Ind17=aaw3*bw5;        !climate -moral-internal
     Ind18=aaw3*bw6;        !climate -moral- external

OUTPUT: STDYX TECH1 TECH8 CINTERVAL;
```

8. Output (Acknowledge the Thailand Research Fund)

8.1 International Journal Publication

Public Personnel Management (PPM)

Web of Science (Quartile 3)

See attachment 1 (The paper has been conditionally accepted).

8.2 Application

(1) It is important for the local people to elect politicians who are ethical in their track records. Election of corrupt politicians can have long term detrimental effects on the SAOs, the local people and also on the employees in particular. Palad SAOs or Chief SAOs can play an important role to compensate for this as they serve as a bridge that connect the local operations with the goals assigned by the politicians.

(2) It is important for the department of local administration (DOLA), Ministry of Interior to consider revising the current local personnel administration act so that clauses on protection against unfair work practices could be included. This may also involve imposing certain penalties on the local politicians who mistreated the employees who whistleblow.

(3) It is important for the government to continue to use the ITA for monitoring the governance climates in the local government organizations. The ITA serves as least two purposes: creating accountability through the use of KPIs and informing these organizations about what needs to be done to enhance the governance in their organizations.

(4) It is important to hire those with high moral efficacy and PSM; these individuals with not just standby when they observe misconduct. However, as our findings showed organizational leaders can play an important role in cultivating these moral values in their employees. As one of the informants indicated, yes, it starts from the top.

8.3 Others e.g. national journal publication, proceeding, international conference, book chapter, patent

Potipiroon, W. (2019, July). Linking Organizational Integrity and Employee Whistleblowing Intentions: A Multilevel Mediation. In *Academy of Management Proceedings* (Vol. 2019, No. 1, p. 15329). Briarcliff Manor, NY 10510: Academy of Management. https://journals.aom.org/doi/abs/10.5465/AMBPP.2019.15329abstract

See attachment 2

Note: The academy of management (AOM) conference is the Number 1 conference in the US.