The Mediating Role of Interpersonal Trust in the Relationship between Formality of Performance Evaluation and Managerial Performance: Empirical Evidence from Malaysia

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ABSTRACT

A Performance Measurement System (PMS) for performance evaluation is used primarily for motivation and evaluating employee performance. The mixed findings on behavioural consequences of performance evaluation from previous research suggest further research to examine its effect on individual performance. This research examined the role of interpersonal trust in the design and function of a control system, specifically the formality of a performance evaluation system in emerging economies. Data was gathered using survey questionnaires that were distributed to higher-level executives and managers of Malaysian Government-Linked Companies (GLCs). The research proposed that subordinates' interpersonal trust may influence the relationship between the formality of a performance evaluation system and managerial performance. Using regression analysis, the research revealed that the use of PMS for performance evaluation may influence individual behaviour. The findings confirm the researchers' expectation that the formality of performance evaluation has a significant influence on interpersonal trust, leading to enhanced managerial performance. There is also evidence of interpersonal trust having a mediating effect between the formality of performance evaluation and managerial performance when tested using the Sobel Test. These findings provide evidence that PMS as a formal performance evaluation may enhance trust, which is significant for improving individual performance.

Keywords: formality of performance evaluation, interpersonal trust, managerial performance

ARTICLE INFO

Article History:

Received: 14 September 2021 Accepted: 8 July 2022 Published: 31 August 2022

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INTRODUCTION

The latest issue in the Performance Measurement System (PMS) research shows increasing perspective on individual performance, such as the relationship between PMS and employee behaviour (Tran, Lepisto & Jarvinen, 2021; Lau & Sholihin, 2005; Hartmann & Slapnic, 2009; Tung, Baird & Schoch, 2011; Rasit & Isa, 2014; Bone, 2017). According to Neely (1995) as well as Parida and Kumar (2006), Performance Measurement (PM) is a process of measurement of actions to look for the outcome of the performance. Successful individuals and organisations use PM as a tool to attain their aims and plans (Kagioglou, 2001). According to Neely (1995, p. 81), PMS is a set of metrics used to measure the efficiency and effectiveness of an action. PMS is the primary function in the management role and reflects the strategic goals of organisations (Jamil & Mohamed, 2013). PMS is a part of the Management Control System (MCS). MCS supported by PMS can manage the growing difficulties since PMS models are more process-oriented, horizontal, and focus on the shareholder desires (Jamil & Mohamed, 2013).

In advanced economies today, the traditional PMS is not sufficient for managers to decide because it only provides information related to monetary measures. Kaplan and Norton (1992) had introduced the Balance Scorecard (BSC), a more comprehensive system to evaluate managerial performance. According to White (2008), BSC is also known as the Strategic Performance Measurement System (SPMS) is a performance measurement tool used to provide valuable data to attain organisational success (Kaplan & Norton, 2001; Rasit & Ismail, 2012). A comprehensive PMS can be used widely for decision influencing and decision facilitating purposes (Sprinkle, 2003; Rasit & Ismail, 2012). PMS for decision influencing is used in the performance evaluation function for motivating and controlling managers and employees. On the other hand, PMS for decision facilitating is used by the managers to make decisions based on the information provided from the PMS (Sprinkle 2003; Rasit & Ismail, 2012). Rasit and Ismail (2012) also gathered findings from prior research relating to the behavioural implications of PMS as the decision facilitating and decision influencing roles. According to Pichler (2012), performance evaluation is a social process embedded in an organizational context. It generates situated cognitions, including critical employee reactions, individual-level attitudinal evaluations, and responses to the performance evaluation process.

Research on the performance evaluation systems has been expanded from the organisational level to focusing on individuals (Tran et al., 2021; Bone, 2017). It shows that the researchers' awareness increases not only focusing on the relationship of the PMS with organisational outcomes but also focusing on its effects on affecting individual outcomes within organisations (Bone, 2017). Based on previous research, evidence show that PMS affects managerial behaviour, and the organisational theory recognises that the success of an organisation depends on the actions of the individuals (Istianningsih, Masnun & Prawiti, 2020; de Haas & Kleingeld, 1999; Otley, 1999; Rasit & Ismail, 2012; Rasit & Isa, 2014). Considerable prior research has examined the influence of behavioural factors in the use of the PMS on individual performance. These include the influence of the PMS on role ambiguity and job-relevant information (Burney & Widener, 2007), trust and fairness (Lau & Sholihin, 2005), trust (Hartman & Slapnicar, 2009; Bone 2017), procedural fairness and role ambiguity (Rasit & Isa, 2014) and innovation (Gamayuni & Dewi, 2019).

However, there is still a gap in the research, particularly on the PMS as a performance evaluation. There are conflicting findings from prior research on the use of the PMS as a performance evaluation towards interpersonal trust, leading to specific effects on managerial performance. Trust is one factor that significantly influences individual performance and job satisfaction (Lau & Moser, 2008; Lau & Sholihin, 2005). Trust is a critical intervention related to PMS as the relationship between managerial performance and the design of the PMS can be influenced by trust. This proposition has been provided and supported in research conducted by Bone (2017). Additionally, it was argued by Six (2005) that formalisation of the performance on the superior. However, in contrast the results obtained from Bone (2017) shows that formal PMS towards trust among team members in organisations had a significant positive relationship.

There is a relationship between performance evaluation and trust that requires further investigation as the issue between performance evaluation and trust is still unclear. Prior research provides mixed findings on how formal control affects trust (Malhotra & Munighan, 2002; Tenbrunsel & Messick, 1999; Coletti, 2005). Research on trust attributions suggests that interpersonal trust may decrease by having formal control systems in organisations because it may involve collaborative behaviour (Malhotra & Munighan, 2002; Tenbrunsel & Messick, 1999). The findings are inconsistent with Coletti (2005), who found the positive effects of trust on formal performance evaluation systems. These systems are essential in providing the collaborators with a performance response that comprises the implicit signal about trustworthiness. Based on Hartmann and Slapnic (2009), there is a positive relationship between formality performance evaluation towards trust.

In this research, formality refers to the measurable and calculated performance of target setting, performance measurement, and reward. The current research examined the effects of formality of performance evaluation and interpersonal trust on managerial performance. Hartmann and Slapnic (2009) stated that the formality of target setting is a superior explicate performance in written and quantitative terms. Managers measure individual employee performance using the formal controls from the performance evaluation system (Hartman & Slapnic, 2009). Meanwhile, informal control is more implicit, qualitative, and interactive, whereby success cannot be measured accurately (Locke & Latham, 1990). For the PM aspect, quantitative and objective measurement implies high formality, while qualitative and subjective measures are associated with informal performance (Moers, 2005). The third dimension of performance measurement formality focuses on the reward. A high formality in rewards is based on the calculated formula and not on personal judgment (Gibs, Merchant, Van der Stede & Vargus, 2004).

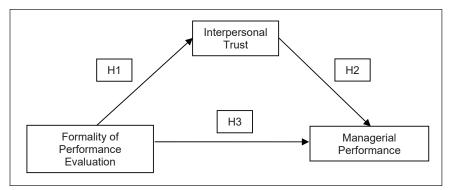
This research will extend earlier studies on the process of performance evaluation formality (Hartmann & Slapnic, 2009; Bone, 2017; Prasetya & Wijayanti, 2018). This research will fill in the gaps by examining the formality of performance evaluation on employee trust, which eventually will enhance managerial performance in the context of emerging markets such as Malaysia with a culture of a high level of power distance and collectivism (Hofstede, 1980). Additionally, this research focussed on the behavioural implication of PMS used as a performance evaluation towards managerial performance in the Malaysian context. The research focused on the implementation of performance evaluation system in Malaysian Government-Linked Companies (GLCs). GLCs are state-owned organisations that were established as a result of Malaysia's privatization policy, introduced in the early 1980s. Since then, the transformation process in many aspects may have started in GLCs. GLCs have also participated in various sectors and have contributed significantly to the Malaysian economy including providing significantly to the national workforce, Malaysian Sock Exchange market capitalisation, and also the Kuala Lumpur Composite Index. Despite its importance to the Malaysian economy, limited research has focused on the performance of GLCs, particularly from the perspective of PMS. Prior PMS research using a qualitative approach by Norhayati and Siti Nabiha (2009) identified transforming the organisational culture of a government-linked organisation using accounting tools particularly PMS which might be time-consuming, costly, and subject to resistance.

Thus, this research extends the qualitative study by Norhayati and Siti Nabiha (2009) to gain further insights into determining the use of accounting tools, particularly, PMS as a performance evaluation tool. Additionally, it was also claimed about GLCs suffered from the problem of internal control and ineffective PMS (Azman, 2004; Norhayati & Siti Nabiha, 2009). The performance evaluation system which links individual performance and reward scheme was also argued as having poor linkages among GLCs. Thus, further insights into the use and implication of the performance evaluation system of GLCs is vital particularly there is a need to examine the factors that would influence the effective use of the system that can help to improve internal control in GLCs.

Considerable prior research has also emphasised the effect on individual behaviour from the decision facilitating role of PMS but less focused on the performance evaluation functions (Smith & Bititci, 2017; Burney, Henle & Widener, 2009; Hall, 2009; Burney & Widenner, 2007; Rasit & Ismail, 2012). This paper is structured to include several sections. The following section provides the review of literature relevant to the area of research, which is then followed by the development of the research framework and the hypotheses. This section then continues with a discussion of the research methodology, data analysis and results, and finally, the limitations and conclusion of the study.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The conceptual framework of this study, as presented in Figure 1, was developed based on the Organisational Theory and the Attribution Theory. The Organisational Theory refers to the actions of individuals or groups that are interrelated and work together to achieve a common goal. Organisational participants act as a team to meet the required needs and goals. Furthermore, the use of PMS influences managerial behaviour because the success of organisations depends on the action of individuals (Istianingsih et al., 2020; de Haas & Kleingeld, 1999; Otley, 1999). The Organizational Theory describes that human relations are developed among the employees through communication that may change employee behaviour making them more responsible and committed to organisational goals (Bhardawaj, 2014). Employing appropriate performance evaluation will lead to effective communication and feedback (Hardmann & Slapnic, 2009).





Likewise, trust is essential in the relationship between subordinates and superiors. Trust relates to the Attribution Theory, whereby the cause of one's actions depends on the environment that affects the individual (Hartmann & Slapnic, 2009). The attribution of the situation that occurs will influence the individual as well as create trust and individual action (Hartmann & Slapnic, 2009). Malhotra and Munighan's (2002) studied team cooperation with formal and informal controls which showed that trust in the group is weak compared to the group without a contractual bond. Besides that, related to performance evaluation, Colletti (2005) demonstrated that the adverse attribution effects could be replaced by trust in performance evaluation and eventually are positively impacted. They found that interpersonal trust increases when performance evaluation improves teamwork and good feedback within the group (Hartmann & Slapnic, 2009). This study examined the behavioural consequences that influence performance evaluation towards managerial performance in meeting the organisational goal which is depicted in the conceptual framework of the research in Figure 1.

The Formality of Performance Evaluation and Interpersonal Trust

Hartmann and Slapnic (2009) found that using the formal performance evaluation methods positively impacts trust and makes the performance appraisal more honest, fair, and accurate which is consistent with Prasetya and Wijayanti (2018). The study is in line with other studies relevant to performance evaluation including Lau and Buckland (2001), Lau and Sholihin (2005), Moers (2005), as well as Hartmann (2005). Their studies focused on behavioural effects of implicit and subjective performance measures. Moers (2005) showed that a subjective assessment of nonmeasurable assessments could lead to biases, such as compression and leniency, and dissatisfaction among employees and that they are contrary to social norms that require a measure of honesty, consistency, and accuracy in building trust (Hartmann & Slapnic, 2009).

Sitkin and George (2005) studied the impact of trust on decisionmaking by management. Their research found that when the management needs to make difficult and painful decisions, they are more likely to use the more formal controls to counter the threat to trust (Hartmann & Slapnic, 2009). According to Hartman and Slapnic's (2009) research, formality in the performance evaluation is relevant in evoking subordinates' trust. Bone (2017) also identified the effect of performance evaluations which include financial and non-financial measures on trust. The use of financial measures enhances individual competence, integrity, reliability, openness, honesty, and satisfaction at work (Indrani & Naidoo, 2020). Financial performance measures significantly influences trust compared to non-financial measures. Additionally, financial performance measures was also claimed as more formal, objective, and specific than non-financial measures (Lau & Sholihin, 2005). Hence, the following hypothesis was postulated:

H1: Formality of performance evaluation system has a positive relationship with interpersonal trust

Interpersonal Trust and Managerial Performance

Job performance and problem-solving increased with the existence of trust among the group members (Lau & Sholihin, 2005). Improving job performance is connected with the performance evaluated by having trust between the subordinates and the superiors (Lau & Sholihin, 2005). When both parties trust each other, they are more open to discuss and express their feelings. This reduces their stress and conflict, hence improving job performance. Those subordinates who do not trust their superiors are less open and unable to communicate their feelings. It is indeed a frustration among them. Therefore, subordinate trust in their superiors is important in improving job performance (Lau & Sholihin, 2005). Bone (2017) had also emphasised the importance of trust that may lead to more effective sharing of information between leaders and employees (Hasel & Grover, 2017). The high trust leads to enhanced performance as employees feel their efforts are being supported and appreciated. Hence, the following hypothesis was postulated:

H2: Interpersonal trust has a positive relationship with managerial performance.

The Formality of Performance Evaluation and Managerial Performance

In the Performance Theory, performance evaluation can be measured by the use of financial and non-financial systems (Lau & Sholihin, 2015; Yuliansyah & Razimi, 2015). Financial measures are used to ensure that decisions made in the past are compliant with measurable measures. In contrast, non-financial aspects are physical evidence, reliability, responsiveness, assurance, and empathy that determine future performance. Incorporating the Performance Theory, interpersonal trust was identified to influence the relationship between financial and non-financial measurements towards managerial performance (Bone, 2017). A variety of performance measures when included in the PMS leads to enhanced level of trust that has positive effects on managerial performance.

Zuriekat, Salameh, and Alrawashdeh (2011) revealed the importance of financial performance measures to improve performance. Findings from the research identified that financial and operational performance measures are the only performance categories that have been used by the sample companies for performance measurement and evaluation purposes (i.e. managerial performance evaluation, financial rewards, and the identification of improvement opportunities and development of action plans), and setting strategic goals. The measures are also considered to be of high quality. Nevertheless, a gap was identified between the corresponding use, setting strategic goals, and the level of quality of these performance measures. The use of performance measures for one purpose does not imply the use for other managerial purposes. Nevertheless, financial performance measures were found to continue to be an important aspect of the performance measurement system. These measures are supplemented with several non-financial performance measures that are being included subject to the perceived usefulness to provide information in the performance measurements and evaluation.

Lau and Sholihin (2005) expressed that the financial measure in the performance evaluation is more beneficial because financial measures are more formal, objective, and specific than non-financial measures. Subjective criteria in the performance evaluation make the superior more biased than verifiable objectives. This statement is supported by significant prior research relevant to the role and importance of performance measurement. In measuring and assessing the performance, the results indicated that the financial and non-financial performance, customer and quality, employees, and suppliers are the company's performance aspects of evaluating performance, setting goals, and identifying ways to be better in performance and output. Hence, the following hypothesis was postulated:

H3: The Formality of a performance evaluation system has a positive relationship with managerial performance.

The Mediating Role of Interpersonal Trust between Formality of Performance Evaluation and Managerial Performance

Trust in organisation is a confidence that the subordinates hold regarding the honesty of their managers (Coletti et al., 2005; Hartman & Slapnicar, 2009; Prasetya & Wijayanti, 2018). Interpersonal trust in a company is made with the aim of improving the performance of workers. When trust can be developed among organisational members, performance evaluation succeeds in the organisation (Prasetya & Wijayanti, 2018; Lau & Sholihin, 2005). Having trust among the subordinates and superiors will create a better relationship. With trust, communication will improve and they become more open to each other (Lau & Sholihin, 2005). Trust can be developed by PMS design and is an important intervention in relation to PMS with managerial performance. Six (2005) asserted that the performance evaluation formalities are able to influence interpersonal trust. Management with a high formality is able to make more accurate, honest, and consistent decisions than the top management that uses personal judgment and measures subjectively (Lau & Buckland, 2001; Hartmann & Slapnic, 2009). If formality in the evaluation is perceived as fair and better it will be more motivating for individuals in performing assigned tasks (Bone, 2017).

Baron and Kenny (1986) provide the condition to determine the presence of a mediating effect. There are three (3) conditions for mediation effect to exist; a. The independent variable, the formality of performance evaluation, has a direct relationship with the mediator (Interpersonal trust). b. The independent variable, the formality of performance evaluation, has a direct relationship with the dependent variable, managerial performance. c. The mediator, interpersonal trust, has a relationship with managerial performance in the presence of an independent variable (the formality of performance evaluation). Based on the literature discussion and Baron and Kenny (1986) conditions, the following hypothesis was formulated.

H4: Interpersonal trust mediates the relationship between formality of performance evaluation and managerial performance.

RESEARCH METHODOLOGY

The Sample and Data Collection

This study adopted a quantitative research approach using a questionnaire survey method for data collection. The stratified random sampling was employed, whereby the research sample was randomly selected (Sekaran & Bougie, 2013). For this study, the target population was the Malaysian GLCs, and the respondents comprised the management and executive-level personnel. A total of 500 questionnaire sets were distributed to selected managers and executives of Malaysian GLCs. The questionnaires were distributed personally, electronically, and through the mail. Personally administered questionnaires are a good medium to collect data as the researcher can collect the data in a short period (Sekaran & Bougie, 2013). A total of 88 questionnaires were returned after the follow-up telephone calls were made.

Data Analysis and Measurements of Variables

The data collected were analysed using the Statistical Packages for Social Science (SPSS) Version 20. Correlation analysis was conducted to examine the relationship between performance evaluation, interpersonal trust, and managerial performance. Additionally, a simple regression analysis was also conducted to examine the relationships among the variables. The study comprised three variables, namely formality of performance evaluation, interpersonal trust, and managerial performance. The summary of the measurements of variables employed in this research is presented in Table 1. This study used a five-point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree) in measuring all the variables (Ghaderi, Saeednia & Doost, 2011; Valmohammadi & Servati, 2011). The demographic data including respondent and company background were measured based on the nominal and ordinal scales. The questionnaire survey was reviewed and amended several times to ensure clarity, face and content validity before being distributing to the respondents.

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Dimensions	Items	Measurement	Prevailing Literatures	
Target setting	4	Five-point	Hartmann and Slapnic	
Performance	2	Likert scale	Likert scale	(2009), Ittner, Larcker,
Evaluation measurement		& Meyer (2003)		
Rewarding	4			
	3	Five-point	Hartmann and Slapnic	
		Likert scale	(2009), Read (1962)	
Planning	9	Five-point	Mahoney (1963, 1965)	
Coordinating		Likert scale		
Evaluating				
Investigating				
Supervising				
Staffing				
Negotiating				
Representing				
Overall performance				
	Dimensions Target setting Performance measurement Rewarding Planning Coordinating Evaluating Investigating Supervising Staffing Negotiating Representing	DimensionsItemsTarget setting4Performance2measurement2Rewarding4Planning9Coordinating9Evaluating1Investigating5Supervising5StaffingNegotiatingRepresenting1	Target setting4Five-pointPerformance2Likert scalemeasurement2Likert scaleRewarding43Five-pointRewarding9Five-pointLikert scalePlanning9Five-pointLikert scalePlanning9Five-pointLikert scaleEvaluating1Likert scaleStaffingSupervisingStaffingStaffingRepresenting	

Table 1: Measurements of Variables

The Formality of Performance Evaluation

The formality of the performance evaluation was measured based on the three aspects of evaluation: target setting, performance measurement, and rewarding. The measurement of target setting was based on four items taken from Hartmann and Slapnic (2009), which were measured using the potential dimensions of performance according to the balanced scorecard logic (Ittner, Larcker, & Meyer, 2003). A five-point Likert scale was used to measure how the performance targets are explicitly documented in a written form and incline to which target is quantified for each dimension separately. Measurement of performance measurement was also based on two questions from the previous article by Hartmann and Slapnic (2009). The formality of the performance measurement indicates the extent to which the superior judge the performance by relying on objective information either from the information system or based on personal judgment. The measures also indicate how the superior express the performance whether in quantitative or qualitative terms. The formality of reward was measured by the objectivity of the reward determined using the five-point Likert scale. There were four (4) items or questions for the measurement. The questions addressed whether rewards were based on superior judgment, objective information, or qualitative or quantitative performance. All the formality of performance evaluation questionnaires were adopted from Hartmann and Slapnic (2009).

Interpersonal Trust

Trust can influence individual performance as it refers to the feeling of trust between a superior and subordinate (Read, 1962; Hartmann & Slapnic, 2009). Trust in supervisors is measured by the instrument developed by Read (1962). It addresses trust by asking the subordinates about the way they perceive how their superior is inclined to take actions involving the interest of the subordinates. Trust was measured based on indicating the extent of agreements of statements on the three (3) items statements; measures included if superior will always acting in my favour if he/she has the chance, superior will always fully and honestly keep me updated on everything important to me and if superior takes a decision that is against my interest which I am convinced that the decision is justified for other reasons. These items were measured using a five-point Likert scale selected as they are the natural causes of trust and may directly assess the elements of trustworthiness.

Managerial Performance

Managerial performance was measured using the self-rating instrument by Mahoney (1963). The measurement of this variable comprised nine items. This instrument required the managers to rate nine dimensions of performance that involved planning, coordinating, evaluating, investigating, supervising, staffing, negotiating, representing, and the overall performance. This instrument couldcapture the multidimensional nature of performance without introducing excessive dimensionality (Brownell, 1983). Respondents self-rated their performance on a five-point Likert scale, with the higher scores indicating very high performance. The researchers used the overall performance score to test and measure managerial performance.

RESULTS AND DISCUSSIONS

Descriptive Analysis

The respondent's background is presented in Table 2. The frequency distribution and percentage are used for the respondent demographic background. It includes gender, age, the highest qualification, working experience, current position experience, and the main unit of the respondents. Even though the unit of analysis for this study was the group, which is the managerial level of Malaysian GLCs, the researcher still included the respondent background in the survey instrument. The reason behind this was to ensure that the data obtained were valid to support the research study.

Demographic Variables	Categories	Frequency	Percent
Gender	Male	40	45.5
	Female	48	54.5
Age (years)	25 – 34	29	33.0
	35 – 44	33	37.5
	45 – 54	24	27.3
	Above 54	2	2.27
Current Working	Less than 5	13	14.8
Experience	6 – 10	21	23.9
(years)	11 – 15	22	25.0
	16 – 20	28	31.8
	More than 21	4	4.5
Qualification	Diploma	21	23.9
	Degree	41	46.6
	Master	21	23.9
	PhD	5	5.7
Position	Top Management	16	18.2
	Middle Management	64	72.7
	Low Management	8	9.1
Business Unit	Production	12	13.6
	Finance	45	51.1
	Selling/Marketing	9	10.2
	Human Resources and Administration	22	25.0

Table 2: Descriptive Analysis: Profile of Respondents (n = 88)

Table 2 shows the gender of the respondents from the management and executive levels at the Malaysian GLCs. The results show that majority of the respondents are female. Out of the total 88 respondents, 40 (45.5%) were male and 48 (54.5%) respondents female. For the age of the respondents, 33 respondents (37.5%) were between 35 to 44 years old and 29 (33.0%) were aged between 25 to 34 years old. There were 24 representing 27.3% of respondents aged between 45 to 54 years old and only two respondents 2.27% were aged above 54 years old.

A total of 28 respondents (31.8%) had between 16 to 20 years of current working experience, followed by 22 respondents (25.0%) with 11 to 15 years of current working experience, and 21 respondents (23.9%) with 6 to 10 years of current working experience. Meanwhile, 13 respondents (14.8%) had less than five years of current working experience, and only four respondents (4.5%) hadmore than 21 years of current working experience. With regards to the highest qualification of the respondents, most of the respondents had a bachelor's degree as their highest qualification (41 respondents; 46.6%). This was followed by the master's degree with 21 respondents (23.9%) and 21 respondents (23.9%) with a diploma qualification. PhD qualification was the lowest number of respondents with only five respondents (5.7%). This is attributed to the importance of a good level of education required to perform the job.

In terms of job position, the majority of the respondents were from middle management with a total of 64 respondents (72.7%). The second-highest rank is the top management with 16 respondents (18.2%), followed by 8 respondents (9.1%) from the lower management. Since the targeted respondents were from the executive level, the data provided would be accurate and valid representing the implementers of the performance evaluation system in the respective organisation. Based on the business unit of the respondents, 45 respondents (51.1%) were from the finance department followed by 22 respondents (13.6%) from production, and nine respondents (10.2%) were from the selling/marketing unit.

Table 5. Descriptive Analysis. I tome of companies					
Demographic Variables Frequency Percentage					
Years of Incorporation (years)	Less than 16	22	25.0		
	More 16	66	75.0		
Number of Employees	Less than 150	17	19.3		
	151 – 300	27	30.7		
	301 – 450	31	35.2		
	Above 450	13	14.8		
Type of Industry	Consumer Products	23	26.1		
	Finance	25	28.4		
	Industrial Products	11	12.5		
	Properties	10	11.4		
	Trading/Services	13	14.8		
	Technology	6	6.8		

Table 3: Descriptive Analysis: Profile of Companies

Table 3 illustrates the details of the respondents' companies. Out of the total of 88 companies, 66 companies (75.0%) were incorporated for more than 16 years and 22 companies (25.0%) were incorporated between 11 to 15 years. As shown in Table 3, most companies had 301 to 450 employees (35.2%). Meanwhile, 27 companies had 151 - 300 employees (30.7%) followed by 17 companies (19.3%) had less than 150 employees, and 13 companies (13.0%) had more than 450 employees. The finding showed that 25 companies (28.4%) were from the finance industry, followed by 23 companies from the consumer products (26.1%), 13 companies from the trading or services industries (13.0%), 11 companies from the industrial products (12.5%), and 6 companies from the technology sector (6.8%).

Tuble 4. Test of Reliability					
Variables	Cronbach's Alpha	Number of Items			
Formality of Performance Evaluation	0.907	10			
Interpersonal Trust	0.732	3			
Managerial Performance	0.858	9			

Table 4: Test of Reliability

The data was tested for reliability as random information errors can be detected through the reliability scale (Pallant, 2011). The reliability scale was used to measure the consistency of the items concerning each other in a set. Cronbach's alpha value ranges from 0 to 1, whereby the higher value indicates the higher reliability of the scale. If the alpha value exceeds 0.70 and above, it indicates a high-reliability value (Pallant, 2011). Cronbach's alpha values were all above 0.7, which indicated that a reliable measurement used for the variable measurement in the research. As presented in Table 4, Cronbach's Alpha values for performance evaluation, trust, and managerial performance were 0.907, 0.732, and 0.858 respectively.

The normality test determines how likely an underlying random variable is normally distributed. Normality is assumed if skewness ranges from -2 to 2, and for kurtosis, it ranges between -3 to 3 (George & Mallery, 2010). As presented in Table 5, all of the variables data in this study were normally distributed as the skewness and kurtosis values were in the range from -3 to 3. The value of skewness for the performance evaluation was -0.403 with a kurtosis value of -0.814. For trust, the skewness was 0.071 with a kurtosis value of -0.638. For the managerial performance, the skewness was -0.198 and kurtosis was -1.426.

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Variables	Trust	Managerial Performance			
Skewness	403	.071	198		
Std. Error of Skewness	.257	.257	.257		
Kurtosis	814	638	-1.426		
Std. Error of Kurtosis	.508	.508	.508		

Table 5: Test of Normality

Table 6 describes the results of the descriptive statistics for all the main variables. The overall mean score for each variable was above average. Nevertheless, the formality of performance evaluation was 3.432 which was the lowest mean score among the variables but slightly above the average mean. The result implies formality in the performance evaluation system implemented among all the respondents' firms. Trust and managerial performance showed high mean scores, which were 3.932 and 4.421 respectively.

Table 6: Descriptive Statistics of the Main Variables (n = 88)

Variables	Mean Standard		Actual Range		Theoretical Range	
variables	wear	Deviation		Мах	Min	Max
Formality of Performance Evaluation	3.432	0.498	3.00	4.00	1.00	5.00
Interpersonal Trust	3.932	0.657	3.00	5.00	1.00	5.00
Managerial Performance	4.421	0.496	4.00	5.00	1.00	5.00

Correlation Analysis

Before proceeding to conduct further analysis, the Pearson correlation analysis was conducted as a preliminary analysis prior to hypothesis testing. The analysis was conducted to examine the relationship between performance evaluation, trust, and managerial performance. Correlation analysis was conducted to examine the association between the two variables (Pallant, 2011) as well as to examine the direction and the strength of the relationship between the two variables (Sekaran & Bougie, 2013). Correlations could range from -1.00 to +1.00, representing the strength of the relationship. Table 7 shows that formality performance evaluation had a significant moderate positive association with trust r(88) = 0.517. This meant that if the formality performance evaluation increases, it also led to an increase in trust. Formality performance evaluation also had a significant positive association with managerial performance. The value of the correlation between trust and managerial performance was 0.331. Asia-Pacific Management Accounting Journal, Volume 17 Issue 2

Variables	Performance Evaluation	Trust	Managerial Performance
Performance Evaluation	1		
Trust	0.517**	1	
Managerial Performance	0.714*	0.331**	1

Table 7: Correlation Matrix between All Main Variables

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

Test of Hypotheses

Simple linear regressions

The analysis then proceeded with regression analysis to examine further the relationships among the variables for hypothesis testing. Additionally, there was no evidence of multicollinearity based on the tolerance values and Variance Inflation Factor (VIF). The results indicated that the tolerance values were more than 0.10 for independent variables and the values of VIF for all variables were less than 10 (Pallant, 2011). The results of the simple regression analysis are presented in Tables 8, 9, and 10. The adjusted R² value was alluded to on the ground that this research consists of a limited sample size. Adjusted R² value would rectify the R² value to gauge a better estimation of the populace (Tabachnick & Fidell, 2007).

	Interpersonal Trust					
Variables	Standardized Beta	Unstandardized Beta	Standard Error	t-value	Sig. Value	Findings
Performance Evaluation	0.517	0.601	0.107	5.605	.000	H1 is supported
R ²	0.268					
Adjusted R ²	0.259					
F Value		31.41	7			

Table 8: Performance Evaluation and Interpersonal Trust

Formality of performance evaluation and interpersonal trust

As shown in Table 8, the regression result, beta coefficient value between the formality performance evaluation and trust was 0.517. The p-value was 0.000 (p < 0.05), indicating that the variables significantly contributed to the relationship equation. Thus, the formality performance evaluation hds a positive and significant relationship with interpersonal trust. Based on the results, the adjusted $R^2 = 0.259$ indicated that performance evaluation accounted for 26% (adjusted $R^2 = 0.259$) variation in interpersonal

trust (F = 31.417, p < 0.01). Hence, the results provided evidence to support H1. Findings from Hartmann and Slapnic (2009) also stated that the formality of performance evaluation is one of the right features to build trust within the subordinates. This fact is supported by Lau and Buckland (2001), and Lau and Sholihin (2005), whereby having formalities in the appraisals creates trust and directly improves employee performance. Besides, they also encourage the formal use of metrics in the appraisal compared to the informal use. More formal performance evaluation means that their supervisors are more explicit in the job objectives setting, more emphasis on the quantitative indicators as the evaluation basis, and more reliance on the information system for the bonus decisions. Besides that, management can enhance trust as formality in performance evaluation will improve their integrity, competence, openness, reliability, satisfaction, and honesty in individual work (Bone, 2017).

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	Managerial Performance						
Variables	Standardized Beta	Unstandardized Beta	Standard Error	t-value	Sig. Value	Findings	
Trust	0.331	0.264	0.81	3.250	.002	H2 is	
R ²	0.109				supported		
Adjusted R ²	0.099						
F Value		10.563	3				

Table 9: Interpersonal	Trust and Managerial Performance
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Interpersonal trust and managerial performance

As shown in Table 9, beta coefficient value of the regression result between trust and managerial performance was 0.331. The p-value was 0.002 (p > 0.05), meaning that it significantly contributed to the equation. Therefore, interpersonal trust had a positive and significant relationship with managerial performance. Adjusted R-square of 0.099 indicated that the formality of performance evaluation can justify 10% of the variation in managerial performance with F = 10.563. Hence, the result provided support for H2. This result was consistent with previous research that has found the effect of behavioural trust on improving managerial performance (Bone, 2017). He also found that trust increases when there is formality feedback from the management, and it helps improve performance. Lau and Sholihin's (2005) also identified the increase in trust as a result of incorporating financial and non-financial aspects in performance evaluation. Many benefits can be obtained if trust is developed in the relationship between the manager and the employees, and it enhances the employee's attitude and performance (Lau & Roopnarain, 2014). Based on studies by Wang and Murnighan (2017), there is a relationship between trust and the performance in which trust is an important factor that can enhance performance.

Variables	Standardized Beta	t-value	Sig. Value	Findings	
Performance Evaluation	0.714	9.468	.000	H3 is	
R ²		0.510		supported	
Adjusted R ²		0.505			
F Value		89.637			

Table 10: Performance Evaluation and Managerial Performance

The formality of performance evaluation and managerial performance

Table 10 presents the regression results between the formality performance evaluation and the managerial performance. The Beta coefficient of 0.714, and the p-value were 0.00 (p < 0.05) indicating a significant positive relationship between the formality performance evaluation towards managerial performance. Additionally, the results also indicated that performance evaluation accounted for 50.5% (adjusted $R^2 = 0.505$) variation of managerial performance (F = 89.637, p < 0.01). Therefore, the results provided evidence to support H3. The results of this study are consistent with Bone (2017). The formal use of performance evaluation by the management provides fair assessment to enhance performance in the organisations. The findings of the study found that the formality in performance evaluation leads to honest attitude in the appraisal that enhances job satisfaction and directly improves employee performance. The summary of the hypotheses results are presented in Table 11.

Table 11: Summary of Research Hypotheses and Findings

	Hypothesis	Findings
H1	Formality of performance evaluation system by superiors has a positive relationship with interpersonal trust.	Supported
H2	Interpersonal trust has a positive relationship with managerial performance.	Supported
H3	Formality of performance evaluation system has a positive relationship with managerial performance.	Supported
H4	Interpersonal trust mediates the relationship between formality of performance evaluation and managerial performance.	Supported

As presented in Table 12, the Sobel test (1982) was used to test the mediating effect of interpersonal trust in the relationship between performance evaluation and managerial performance. Based on the results of the Sobel test, the indirect effect was exclusive via trust. The t-value related to the indirect effect was statistically significant at the 1% significance level (Appendix 1). Thus, the result provided evidence that trust mediates the relationship between performance evaluation and managerial performance. The use of formality of performance evaluation indirectly improved managerial performance through trust.

 Table 12: Analysis of Indirect Effects of Interpersonal Trust between

 Formality of Performance Evaluation and Managerial Performance

Indirect effect	Indirect effect coefficient	Standard deviation of the coefficient	t-value
Interpersonal Trust	0.159	0.067	2.361

DISCUSSIONS, LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The research examined how PMS as a performance evaluation system relates to individual performance. The research provided empirical evidence relevant to the behavioural consequences of PMS, specifically from the perspective of the performance evaluation system towards individual performance (Lau & Sholihin, 2005; Hartman & Slapnic, 2009; Bone, 2017; Gamayuni & Dewi, 2019). The Sobel test was conducted to examine whether the relation between performance evaluation and managerial performance was direct or indirect through the mediating variable of interpersonal trust. Results indicated that performance evaluation directly influences managerial performance. The PMS as a performance evaluation system also indirectly affects managerial performance through interpersonal trust. Incorporating the Organisational Theory and the Attribution Theory, the research provided empirical evidence of the behavioural consequences of performance evaluation formality towards trust and performance. Specifically, the research found a positive and significant relationship between the formality of performance evaluation and trust. In a way, this research contributes to providing evidence for the direct and indirect relations between MCS and individual performance (Shields et al., 2000) and is consistent with findings from prior research relating to the link between performance evaluation and trust (Hartman & Slapnic, 2009; Bone, 2017)

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The research also contributes empirical evidence that the formality of performance evaluation is an appropriate element to create a sense of trust between employees and employers (Hartman & Slapnic, 2009). The formality of the performance evaluation comprises three components, namely target setting, performance measurement, and rewarding. The results are consistent with Lau and Sholihin (2005) who stated that having formal assessments in an organisation creates a good working relationship because trust is created between them. Additionally, this result implied that formal assessment is a better way of evaluating performance. In addition, when management performs formal evaluation, it is more transparent, honest, and fair-minded because it is based on written goals, formulas, and procedures agreed upon between them (Bone, 2017). Such an attitude would create trust because their performance is being assessed fairly (Bone, 2017). The formality of performance evaluation was identified to positively correlate with managerial performance, which is consistent with Bone (2017).

Findings from the research provide empirical evidence of the PMS implementation, particularly as a performance evaluation system in Government-Linked Companies (GLCs), one of the most significant contributors to the Malaysian economy. The research provides further insights to determine other factors that would influence the effective use of the performance evaluation system in GLCs which was identified to undergo a transformation process since the Malaysia's privatisation policy (Norhayati & Siti Nabiha, 2009). This research provides evidence that the formality of performance evaluation as a mechanism of control is relevant. The presence of trust in the superior and subordinate relationship is important for the performance evaluation system to be effectively implemented as part of the internal control system in GLCs. Employees can improve their performance when they experience formality in the evaluation system. The assessment is perceived as fair and better evaluation, thus, more motivating and encouraging individuals to put more effort into performing assigned tasks. Besides that, employees are clear on how the management evaluates their performance because written and defined guidelines are more transparent and help in improving employees' performance.

In addition, the formality of evaluation enables staff to feel more satisfied and improve their performance due to fair treatment by the manager (Bone, 2017). The results implied that the top management's fair assessment or formal evaluation would improve individual employees' performance and lead to enhanced organization's performance. Additionally, findings also indicated that trust had a positive and significant relationship with performance. This is consistent with the research findings by Bone (2017) which stated that trust might enhance individual performance. Trust created in a relationship would be an essential element to make a better performance. Through developing trust, the relationship between employee and employer becomes closer and open (Bone, 2017). They share information and help to improve work performance (Bone, 2017). Lau and Sholihin (2005) also believed that trust can help improve both financial and non-financial performances. According to Lau and Roopnarain (2014), trust in relationships and organisations has many benefits and can help to achieve goals.

The findings of this research are described in light of several limitations when conducting the research. Using a questionnaire survey for data collection resulted in a low response rate as there is a high potential of the survey not reaching its intended respondents. There data in this research was small because of time limitations that may have led to the possibility of contradiction of the findings with other studies, and response biasness and inaccuracy This circumstance occured because of the need to protect the companies' privacy to keep the excellent performance image of their companies. However, the low response rate is acceptable according to Isa (2007), as mail surveys on emerging issues in Malaysia also revealed a similar pattern of response rate. Another limitation of the survey is that some of the questions may not fully reflect their thoughts due to how the questions were asked or due to the limitations of the questionnaire design (Gorrell, Ford, Madden, Holdridge & Eaglestone, 2011). These proclivities may prompt inaccuracies of data. The inaccuracy could have also been generated from an imbalance of respondents who saw overly positive or negative research.

Future research should extend the area of research to investigate other factors that may influence the effects of PMS as both decision facilitating and influencing roles on individual performance. These factors might include behavioural factors or personality traits. In addition, contingency factors such as advanced technology adoption in PMS would provide useful insights that would be relevant to the edge of digitalisation. Furthermore, technology

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is one of the main contingency factors that can significantly affect the implementation of Management Control System (MCS) and Management Accounting systems (MAS). Future research may also extend the research to cover wider industrial manufacturing or service sectors and use more extensive samples for better generalisation of findings. Comparative studies between private and public sectors would provide further insight into the PMS implementation. Realising the limitation of the survey method, future research may consider adopting an in-depth qualitative case study approach to gain further insights into the research area.

ACKNOWLEDGMENT

The authors would like to extend their appreciation to the Universiti Teknologi MARA (UiTM), particularly the Faculty of Accountancy, Universiti Teknologi MARA Cawangan Selangor, for the financial support in conducting the research and for the research publication.

REFERENCES

- Azman, M. (2004, October). Remaking Khazanah and the GLCs-a capitalist's approach. In *speech presented on* (Vol. 4).
- Bharadwaj, A. (2014). Planning internal communication profile for organizational effectiveness. *IIM Kozhikode Society & Management Review*, 3(2), 183-192.
- Bone, H. (2017). The effects of financial and non-financial performances towards the managerial performances with interpersonal trust as a mediation variable. *International Journal of Law and Management*, 59(6), 1190-1202.
- Brownell, P. (1983). Leadership style, budgetary participation and managerial behaviour. *Accounting, Organizations And Society, 8*(4), 307-321.
- Burney, L. L., Henle, C. A., & Widener, S. K. (2009). A path model examining the relations among strategic performance measurement

system characteristics, organizational justice, and extra-and in-role performance. *Accounting, Organizations and Society*, *34*(3-4), 305-321.

- Burney, L., & Widener, S. K. (2007). Strategic performance measurement systems, job-relevant information, and managerial behavioral responses
 Role stress and performance. *Behavioral Research in Accounting*, 19(1), 43-69.
- Coletti, A. L., Sedatole, K. L., & Towry, K. L. (2005). The effect of control systems on trust and cooperation in collaborative environments. *The Accounting Review*, 80(2), 477-500.
- De Haas, M., & Kleingeld, A. (1999). Multilevel design of performance measurement systems: Enhancing strategic dialogue throughout the organization. *Management Accounting Research*, 10(3), 233-261.
- Gamayuni, R. R., & Dewi, F. G. (2019). The effect of incentives and non-financial performance on managerial performance. *International Research Journal of Business Studies*, *12*(1), 41-54.
- George, D., & Mallery, P. (2010). SPSS for Windows step by step. A simple study guide and reference (10. Baska). GEN, Boston, MA: Pearson Education, Inc.
- Ghaderi, M., Saeednia, H., & Doost, H. V. (2011). Investigating the factors affecting successful BSC implementation in the MAPNA railway sector. *International Business & Economics Research Journal*, 10(11), 47-55.
- Gibbs, M., Merchant, K. A., Stede, W. A. V. d., & Vargus, M. E. (2004). Performance in Public Organizations: Clarifying the Conceptual Space. IZA Discussion Paper No. 1356, 41.
- Gorrell, G., Ford, N., Madden, A., Holdridge, P., & Eaglestone, B. (2011). Countering method bias in questionnaire-based user studies. *Journal* of Documentation, 67(3), 507-524.
- Gosselin, M. (1997). The effect of strategy and organizational structure on the adoption and implementation of activity-based costing. *Accounting, Organizations and Society, 22*(2), 105-122.

- Hall, M. (2008). The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance. *Accounting, Organizations and Society*, *33*(2-3), 141-163.
- Hartmann, F. (2005). The effects of tolerance for ambiguity and uncertainty on the appropriateness of accounting performance measures. *Abacus*, *41*(3), 241-264.
- Hartmann, F., & Slapnic, S. (2009). How formal performance evaluation affects trust between superior and subordinate managers. *Accounting, Organizations And Society,* 34, 722–737.
- Hasel, M. C., & Grover, S. L. (2017). An integrative model of trust and leadership. *Leadership & Organization Development Journal*, 38(6), 849-867.
- Hofstede, G. (1980). Culture and organizations. *International Studies of* Management & organization, 10(4), 15-41.
- Indrani, M. W., & Naidoo, M. (2020). Exploring divisional vs. managerial performance evaluation practices in listed companies: Evidence from Sri Lanka. *International Journal of Accounting and Business Finance*, 6(2), 115 – 137.
- Isa, C. R. (2007). A note on market competition, advanced manufacturing technology and management accounting and control systems change. *Management & Accounting Review (MAR)*, 6(2), 43-62.
- Istianingsih, N., Masnun, A., & Pratiwi, W. (2020). Managerial performance models through decision making and emotional intelligence in public sector. *Administratie si Management Public*, (35), 153-166.
- Ittner, C. D., Larcker, D. F., & Meyer, M. W. (2003). Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard. *The Accounting Review*, 78(3), 725-758.
- Jamil, C. Z. M., & Mohamed, R. (2013). The effect of management control system on performance measurement system at small medium hotel in

Malaysia. International Journal Of Trade, Economics And Finance, 4(4), 202-208.

- Kagioglou, M., Cooper, R., & Aouad, G. (2001). Performance management in construction: A conceptual framework. *Construction Management* and Economics, 19(1), 85-95.
- Kaplan, R. S., Robert, N. P. D. K. S., Kaplan, R. S., & Norton, D. P. (2001). The strategy-focused organization: How balanced scorecard companies thrive in the new business environment. Harvard Business Press.
- Kaplan, R., & Norton, D. (1992). The balanced scorecard Measures that drive performance. *Harvard Business Review (January-February)*, 71-79.
- Lau, C. M., & Moser, A. (2008). Behavioural effects of non-financial performance measures: The role of procedural fairness. *Behavioural Reserach In Accounting*, 20, 55-71.
- Lau, C. M., & Roopnarain, K. (2014). The effects of non-financial and financial measures on employee motivation to participate in target setting. *The British Accounting Review*, 46, 228-247.
- Lau, C. M., & Sholihin, M. (2005). Financial and nonfinancial performance measures: How do they affect job satisfaction? *The British Accounting Review*, 37, 389–413.
- Lau, C., & Buckland, C. (2001). Budgeting—The role of trust and participation: A research note. *Abacus*, *37*, 369-388.
- Locke, E. A., & Latham, G. P. (1990). A theory of goal setting & task performance. Prentice-Hall, Inc.
- Mahoney, T. A. (1963). *Development of managerial performance: A research approach*. South western Publishing Company.
- Malhotra, D., & Murnighan, J. K. (2002). The effects of contracts on interpersonal trust. *Administrative Science Quarterly*, 47(3), 534-559.

Asia-Pacific Management Accounting Journal, Volume 17 Issue 2

- Moers, F. (2005). Discretion and bias in performance evaluation: The impact of diversity and subjectivity. *Accounting, Organizations and Society*, *30*(1), 67-80.
- Moriarty, J. (2010). Participation in the workplace: Are employees special? *Journal of Business Ethics*, 92(3), 373-384.
- Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design: A literature review and research agenda. *International Journal of Operations & Production Management*, 15(4), 80-116.
- Otley, D. T. (1999). Performance management: A framework management control systems research. *Qualitative Research in Accounting and Management*, 10(4), 363-382.
- Pallant, J. (2011). Survival manual. A step by step guide to data analysis using SPSS, 4.
- Parida, A., & Kumar, U. (2006). Maintenance performance measurement (MPM): Issues and challenges. *Journal of Quality in Maintenance Engineering*, 12(3), 239-251.
- Pichler, S. (2012). The social context of performance appraisal and appraisal reactions: A meta- analysis. *Human Resource Management*, 51(5), 709-732.
- Prasetya, J. A., & Wijayanti, D. (2018). Procedural Fairness as Intervening Variable Between Voice and Performance Evaluation Formality on Trust. Jurnal Aplikasi Manajemen, 16(4), 605-613.
- Rasit, Z. A., & Isa, C. R. (2014). The Influence of Comprehensive Performance Measurement System (CPMS) Towards Managers' Role Ambiguity. *Procedia-Social and Behavioral Sciences*, 164, 548-561.
- Rasit, Z. A., & Ismail, K. (2012). Behavioural Consequences of The Performance Measurement System (PMS) In A Decision-Facilitating Role - A Review. *Journal of Accounting Perspectives*, 5, 35-47.

- Read, W. H. (1962). Upward communication in industrial hierarchies. *Human Relations*, *15*(1), 3-15.
- Sekaran, U., & Bougie, R. (2013). Research methods for business: A skillbuilding approach (6th ed.). Haddington: John Wiley & Sons.
- Shields, M. D., Deng, F. J., & Kato, Y. (2000). The design and effects of control systems: Tests of direct- and indirect-effects models. *Accounting, Organizations and Society, 25*(2), 185-202.
- Sitkin, S. B., & George, E. (2005). Managerial trust-building through the use of legitimating formal and informal control mechanisms. *International Sociology*, 20(3), 307-338.
- Six, F. (2008). *The trouble with trust: The dynamics of interpersonal trust building*. Edward Elgar Publishing.
- Smith, M., & Bititci, U. S. (2017). Interplay between performance measurement and management, employee engagement and performance. *International Journal of Operations & Production Management*, 37(9), 1207-1228.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), Sociological methodology, 1982 (pp. 290-312). Washington, DC: American Sociological Association. doi:10.2307/270723
- Sprinkle, G. B. (2003). Perspectives on experimental research in managerial accounting. *Accounting, Organizations and Society*, 28(2-3), 287-318.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Experimental designs using ANOVA* (p. 724). Belmont, CA: Thomson/Brooks/Cole.
- Tenbrunsel, A. E., & Messick, D. M. (1999). Sanctioning Systems, Decision Frames, and Cooperation. *Administrative Science Quarterly*, 44(4), 684–707.

- Tran, T. V., Lepistö, S., & Järvinen, J. (2021). The relationship between subjectivity in managerial performance evaluation and the three dimensions of justice perception. *Journal of Management Control*, 1-31.
- Tung, A., Baird, K., & Schoch, H. P. (2011). Factors Influencing The Effectiveness Of Performance Measurement Systems. *International Journal Of Operations & Production Management*, 31(12), 1287-1310.
- Valmohammadi, C., & Servati, A. (2011). Performance measurement system implementation using Balanced Scorecard and statistical method. *International Journal of Productivity and Performance Management*, 60(5), 493-511.
- Wang, L., & Murnighan, J. K. (2017). The dynamics of punishment and trust. *Journal of Applied Psychology*, 102(10), 1385-1402.
- White, L. (2008). The Use of Performance Measures and Their Outcomes. Journal of American Academy of Business, Cambridge, 13(1), 133.
- Yuliansyah, Y., & Razimi, M. S. A. (2015). Non-financial performance measures and managerial performance: The mediation role of innovation in an Indonesian stock exchange-listed organization. *Problems and Perspectives in Management*, 13(4), 135-145.
- Zuriekat, M., Salameh, R., & Alrawashdeh, S. (2011). Participation in performance measurement systems and level of satisfaction. *International Journal of Business and Social Science*, 2(8), 159-169.

APPENDIX 1

$$\begin{split} S_{\beta a \beta b} &= \sqrt{\beta_{a}^{2}} S_{a}^{2} + \beta_{b}^{2} S_{b}^{2} - S_{a}^{2} S_{b}^{2} \\ &= \sqrt{(0.601)^{2}} (0.107)^{2} + (0.264)^{2} (0.081)^{2} - (0.107^{2})(0.081^{2}) \\ &= 0.0672116 \\ t &= \beta_{a}\beta_{b} / S_{\beta a \beta b} = (0.601)(0.264)/0.0672116 \\ &= 0.158664/0.0672116 \\ &= 2.36 > 2.33 \text{ (one-tail) at } \alpha = 0.01 \\ There is a strong mediating role of interpersonal trust in the relationship \\ between performance evaluation and managerial performance \end{split}$$