

## E-PROCUREMENT FRAUD INTENTION IN THE MALAYSIAN PUBLIC SECTOR

I.K. Norziation<sup>1\*</sup>, L. Aniza<sup>2</sup>, M.A. Emmarelda<sup>3</sup>

<sup>1,3</sup>Faculty of Accountancy, Universiti Teknologi MARA, Puncak Alam, Selangor

<sup>2</sup>Ministry of Finance, Fiscal & Economics Division

Corresponding author: <sup>1\*</sup> [norzi153@uitm.edu.my](mailto:norzi153@uitm.edu.my)

### ABSTRACT

Public sector e-procurement fraud can be seen as one of the most common forms of economic crime and it has increased since 2012. The interest in the e-procurement fraud intention becomes more important in the Malaysian public sector to ensure that transparency in every transaction involving public money is well spent. Thus, this paper aims to examine the relationship between the attitude, subjective norms and perceived behaviour control among the e-procurement officers and their intention to engage in e-procurement fraud within the Malaysian public sector. Theory of Planned Behaviour is used to form the framework and develop the hypotheses to be examined. Regression analysis was used to determine the relationship that exists between the variables. The data were collected from the online surveys which had been answered by e-procurement officers who were involved in the procurement process. Three hypotheses were developed and tested. The result showed that there was a significant relationship between the attitude, subjective norms and perceived behaviour control of e-procurement officers and e-procurement fraud intention and all hypotheses were accepted. However, both control variables namely gender and job position have no relationship with e-procurement fraud intention.

**Keywords:** *E-procurement, Fraud intention, Public Sector, Theory of Planned Behaviour*

### 1.0 INTRODUCTION

Procurement encompasses activities and processes of purchasing good products and services, either in the public sector or private sector. Based on research conducted by Price Waterhouse Coopers (2015), the market of public procurement is huge, varying in economic sectors which covers the demands and needs of the citizen. It has established fundamental requirements, negotiation of contracts, and sourcing activities, including market research and supplier evaluation as well as purchasing activities required for placing an order and receiving goods and services. Therefore, to fulfil this, the public sector will have a related transaction with the private sector to supply goods and services to

the public. In most developed and developing economies, public procurement is the largest single marketplace which accounts for around one-fifth of the global Gross Domestic Product (GDP). Hence, transparency in public sector procurement is vital to all countries. Most developed countries have established various methods to create and endure transparency. One of the mechanisms is highlighted through the transformation of the public sector procurement approach from manual to electronic procurement. Electronic procurement or also known as e-Procurement (eP), is primarily an active internet-platform provided by the government in purchasing goods and services, which incorporates many aspects of electronically-assisted procurement. Therefore, the government will

be able to save time, money, and adds value to the traditional procurement process through improved compliance and added visibility (Foundation et al., 2008). It is hoped that the transition would help to reduce the risks of fraud and unethical activities in public procurement.

According to PWC (2015), 60% of the perpetrators of fraud and economic crime in the public sector are from government officials. It also indicates that procurement fraud has increased in the public sector since 2012. This is supported by a report from the anti-corruption commission of Australia, that procurement fraud has increased from 24% in 2009 to 35% in 2012. E-procurement fraud has become a major threat to the public sector and it continuously happens due to direct or indirect involvement by an internal officer (Eaton and Korach, 2016). A study by Haron et al. (2011), incompetency of a procurement officer especially in monitoring and auditing of progress and performance of the project tender is one of the most common issues raised in procurement. The attitude and behaviour of e-procurement officers to carry out their procurement function must be under the highest standards of professionalism and in the respect of values, objectives, and interests of the Malaysian public sector. The weaknesses of public procurement officers were highlighted in the keynote speech by Buang (2017) where a continuous effort has been done by the government to promote awareness through training and new policies on accountability, transparency and integrity to uphold the public trust. Several initiated measures have been done by the government to address the weaknesses, especially in public procurement management by strengthening the role of internal auditors, across-the-board auditing of procurement in government departments and agencies, and having more focused training on procurement management. Despite increased actions for fraud prevention and detection methods, many frauds were accidentally discovered after going on for prolonged periods. Hence, the government still focuses on delivering services effectively and efficiently from the

government for the people of Malaysia, enabling the government to become more responsive to the needs of its citizen.

Based on Zulaikha et al. (2016), they agreed that fraud happened due to the lack of integrity and transparency in the procurement procedures, including the lack of independence of the procurement committee of the government goods and services procurements. In this regard, the behaviour of e-procurement officers, either those directly or indirectly involved in the e-procurement process can be the main cause of e-procurement fraud. Moreover, Malaysia's Prime Minister, Tun Dr Mahathir Mohamad (2018) in his keynote at the Town hall Session with Administrative and Diplomatic Officer (PTD) strongly stated that there would be no compromise in the case of government leaders and officers found to be involved in corruption.

Many researchers applied the underlying assumptions of the Fraud Triangle Theory and Fraud Diamond Theory to explain the factors that determine why an individual engaged in fraudulent activities. Both theories provide a general but solid cause of reasoning. However, Zulaikha et al., (2016) argued that rationalisation can be the proxy of the Theory of Planned Behaviour, to promote the intention to engage in fraud. Based on Cohen et al., (2010), the Theory of Planned Behaviour can be used to explain the elements that influence fraud which is attitude, subjective norms and perceived behavioural control. However, it is not easy to determine the intention of an individual to engage in e-procurement fraud. Hence, it is vital to understand the behaviour of the potential fraudster within the e-procurement system. For that reason, it is crucial for this research to be conducted since it will provide an understanding of the intention of e-procurement officers when committing fraud or unethical activities in e-procurement. Based on the arguments, this study will examine the relationship between attitude, subjective norms and perceived behavioural control among the e-procurement officers

and the intention to engage e-procurement fraud in the Malaysian public sector, through the lens of the Theory of Planned Behaviour.

## 2.0 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Concerning a study by Badenhorst (1994), unethical behaviour and corruption were caused by poor management, wrong views and a lack of policy and control systems. According to Lin and Chen (2011), the frequencies of past unethical behaviours have resulted in an alarming concern for managers and business entities due to more than 66% of the study subjects had privately used company resources, where 43.6% claimed to falsify work data and 33.2% reported taking credit of other's work. As detailed out in the Theory of Planned Behaviour, attitude and subjective norms have a strong influence on unethical behaviour intentions, therefore, it is important to improve the attitude of their employees and to develop positive norms in organisations. Based on a study done by Kashif et al. (2018), they had examined the impact of attitude, subjective norms and perceived behavioural control on managers intentions to behave ethically and the result significantly influenced the decision to behave ethically in the workplace. According to them, attitude can be referred to as a judgement of an individual towards the expected outcomes about a particular behaviour plus based on prior experience. Besides, Awang et al. (2016) stated that the higher the attitude of an individual towards fraud in financial reporting, the higher the intentions are to engage in financial reporting fraud. Harland et al. (2007) discovered that the attitude of the exemplary official behaviour of government was presented by the characteristics of procurement in the public sector. An ideal could also include in terms of the efficiency and effectiveness of the entire process, and not just in terms of ethics. In contrast, the attitude that gives a tolerance of fraud will encourage individuals to have the intention to commit fraud (Harland et al., 2007). In the context of e-procurement fraud, the attitude of the e-procurement officers may influence

the behaviour intention to engage in e-procurement fraud. Based on previous works of literature, the relationship between attitude and fraud intention can either be positive or negative. Some positive relationship was found between attitude associated to engage in government procurement fraud (Meitriana et al., 2019). Thus, the role of the managers' attitude can be a major fraud risk factor. Carpenter and Reimers (2005) agreed that managers' unethical behaviour towards financial reporting fraud can be explained by the Theory of Planned Behaviour. Generally, the more favourable the attitude towards the behaviour, the stronger should be the individual's intention to perform it. Therefore, based on the above arguments the following hypothesis is formulated:

H1: There is a significant relationship between the attitude of e-procurement officers and e-procurement fraud intention.

Subjective norms can be defined as an individual's perception that most people who are important to him or her think he or she should (or should not) perform a particular behaviour (Ajzen, 1991; Fishbein and Ajzen, 2010). In this context, the research will also focus on measuring subjective norms where the individual is asked to consider all important references and in an additive way to calculate the social pressure. Based on Ajzen (1991), subjective norms are the amount of pressure people feel from important "others" to perform or not to perform a particular behaviour (Ajzen, 1991). Subjective norms are measured by the perceived expectation of differently phrased statements by considering all important persons to an individual. The more an individual perceives that reference groups think he should engage in a behaviour, the more likely he intends to do such behaviour (Fishbein and Ajzen, 1975). According to Wated and Sanchez (2005), they found that managers' subjective norms were only significant when employees' behaviour does not involve severe penalties. The views of others were ignored by the managers but they

focused more on the employee's attitudes and attributions. In the study, subjective norms can forecast the managers' intentions to discipline corrupt employees in addition to external attributions, and not internal attributions. Based on Reni and Anggraini (2016), they found that there is no relationship between subjective norms and internal audits intention in conveying fraud. In their study, comfort situations where a person feels at ease and comfortable with the environment are other factors that could be considered by the internal auditor when reporting any findings. Additionally, Armitage and Conner (2001) noticed that subjective norms were the most unconvincingly associated with intention in the Theory Planned Behaviour element in the meta-analysis result. Therefore, they concluded that subjective norms need further empirical attention because this element response varied across behaviours and situations. However, based on Awang et. (2016), subjective norms can influence an individual to commit fraudulent reporting statements and they had discovered that the more reference groups to an individual who would approve or support the violation of the procedure, the more likely that individual will get involved in committing fraud. Hence, the next hypothesis is formulated:

H2: There is a significant relationship between the subjective norms of e-procurement officers and e-procurement fraud intention.

Perceived behavioural control is the element that differentiates between the Theory of Planned Behaviour and the Theory of Reasoned Behaviour. Perceived behavioural control refers to an individual perceived easiness or difficulty in performing a specific behaviour (Ajzen, 1991). Perceived behavioural control defines the motivational basis of behavioural intention. Lin and Chen (2011), they indicated that the more favourable the attitude and subjective norms on certain behaviour, the greater the perceived behavioural control, therefore, the stronger a person's intention to conduct the activity. To this degree, the Theory of Planned

Behaviour element can be described as based on prior experience, and the respondents may not have had experience in this type of decision. According to Zulaikha et al. (2016), with perceived power to control, procurement committee members have more potential behaviour to commit fraud. In Reni and Anggraini (2016), the role of perceived behavioural control can mitigate the influence of internal auditor's attitude and intention in conveying fraud. Based on the analogy of the Theory of Planned Behaviour model, attitude towards the behaviour assumed that perceived behavioural control is determined by the total set of accessible control beliefs about the presence of factors that may facilitate or impede the performance of the behaviour. It increases when individuals perceive that they have more resources and confidence (Ajzen, 1985; Hartwick and Barki, 1994; Lee and Kozar, 2005). Lin and Chen (2011) had described perceived behavioural control as ease or difficulty of performing the behaviour in question. Perceived behavioural control is assumed to reflect past experiences as well as anticipated impediments and obstacles. The theory predicts that the greater the perceived behavioural control, the stronger shall be an individual's intention to perform the behaviour in question. Specifically, perceived behavioural control is a function of control belief and evaluation of perceived power (importance) of each control belief (Ajzen, 1991; Park and Blenkinsopp, 2009). Therefore, based on that, the third hypothesis is as follows:

H3: There is a significant relationship between the perceived behavioural control of e-procurement officers and e-procurement fraud intention.

### 3.0 RESEARCH METHOD

#### 3.1 Data Collection

The study uses questionnaires for data collection. Twenty-five ministries were chosen as a sample for this study. The questionnaires were distributed to 300 public servants however, 115 were returned and

usable. All questions in Part A would require the respondents to answer regarding the demographic profile of themselves without disclosing any personal or private information. The measurement of the independent and dependent variables is under Section B to Section F of the questionnaire. There are eight (8) items in each section to measure the behaviour of e-procurement officers towards e-procurement fraud intention adopted from Ajzen (2015), Melorose et al. (2015), Rice and Business School (2016) and Kashif et al. (2018). Overall, the survey contains 37 questions, which require the respondent to rate based on a five-point Likert scale with 0 to 5: "1" indicates strongly disagree while "5" indicates strongly agree.

### 3.2 E-procurement Fraud Intention Model

The dependent variable in this study is e-procurement fraud intention. The main experimental variables are the attitude of e-procurement officers (Att), subjective norms of e-procurement officers (SubNorm) and perceived behavioural control of e-procurement officers (PBCtrl) and the control variables are gender (GEN) and job position of e-procurement officers (JPOST). A model for this study was developed as follows:

$$E\_PFI = \alpha + \beta_1(Att) + \beta_2(SubNorm) + \beta_3(PBCtrl) + \beta_3(GEN) + \beta_3(JPOST) + \epsilon$$

Where,

E-PFI = E-Procurement Fraud Intention

Att = Attitude of E-Procurement Officers

SubNorm = Subjective Norms of E-Procurement Officers

PBCtrl; = Perceived Behavioural Control of E-Procurement Officers

GEN = Gender

JPOST = Job Position of E-Procurement Officers

### 3.3 Demographic Analysis

This section provides a descriptive analysis of the respondents' demographic characteristics. Figure 1 shows the frequency

of respondents based on their gender. The total respondents for this study are 115.

Approximately 33.9% of the respondents are male whilst 66.1% of the respondents are female. The respondents are also categorised into three groups ranging from the ages of between 25 to above 45 years of age as in Figure 2. There are 34 respondents (29.6%) aged 25 to 35 years, 75 respondents (65.2%) aged between 35 to 45, 6 respondents (5.2%) aged 45 above.

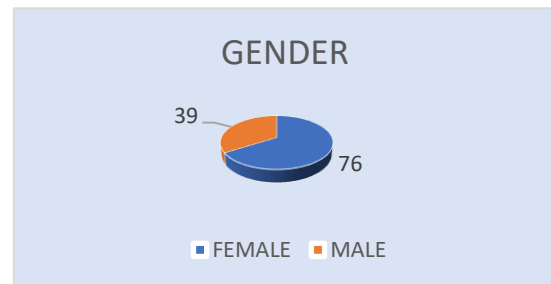


FIGURE 1

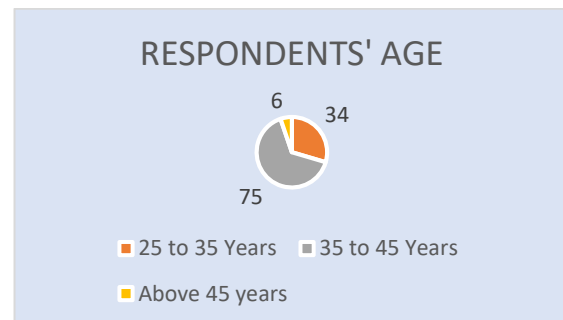


FIGURE 2

Figure 3 shows the respondents are categorised into four groups according to their education level, about 64.3% of the respondents hold a bachelor's degree followed by 33% of the respondents with a master's degree and only 2.6% of respondents with professional certificates.

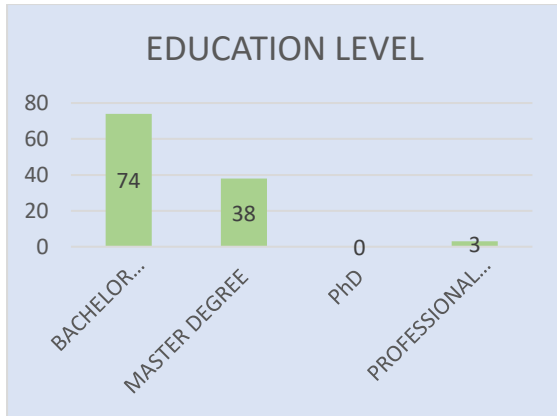


FIGURE 3

As for job position held by the respondents, 52.2% of the respondents are holding Grade 41 to 44 whilst 47.8% are holding Grade 48 to 54 in their respective departments, as in Figure 4.

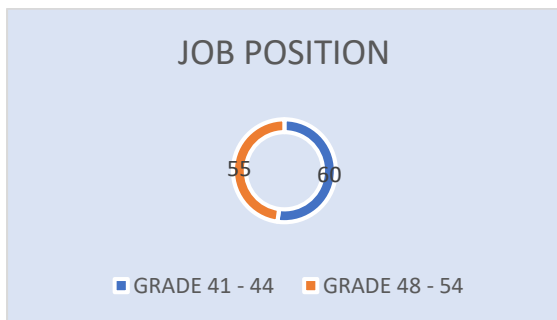


FIGURE 4

In addition, Figure 5 shows that about 33% of the respondents have working experience between 1 to 5 years, whilst 23.5% have between 6 to 10 years while 43.5% of the respondents have more than 10 years of working experiences.

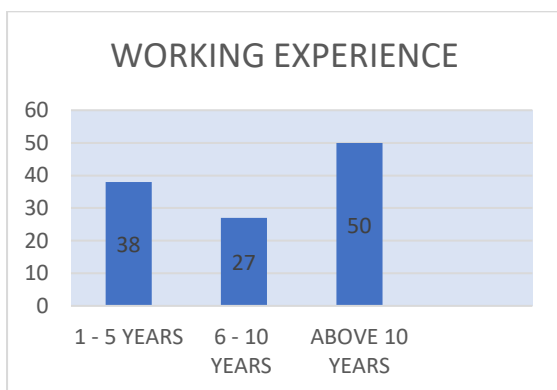


FIGURE 5

### 3.4 Descriptive Statistics

Table 1 shows the descriptive statistic of the dependent variable, namely e-procurement fraud intention based on the results of the questionnaire. The highest mean score goes to question 7, 'An e-procurement officer purposely signs a delivery order (DO) and verify the acceptance of office equipment, which is not delivered. He pocketed the amount for himself' where the mean score response is 4.82, which is greater than 3.00. This finding implies that the respondents agreed to the statement that it can be the indication of a person's intention to conduct e-procurement fraud. The lowest mean score goes to question 2, 'An e-procurement officer routinely accepts free meals, cigarettes and other items of small value from vendors and suppliers. However, these gifts will not influence his judgement during the e-procurement process' where the mean score response to the question is 1.95, i.e. lower than 3.00. This finding implies that on average, the respondents slightly disagreed with the statement which indicated the judgement of the respondents during e-procurement may influence their behaviour.

TABLE 1  
E-Procurement Fraud Intention

No.	Item	Mean	SD
1	An e-procurement officer ensures that all potential bidders are given the same information about the procurement exercise.	4.77	0.48
2	An e-procurement officer routinely accepts free meals, cigarettes and other items of small value from vendors and suppliers. However, these gifts will not influence his judgement during the e-procurement process.	1.95	1.37
3	An e-procurement officer accepts gifts of food and hampers from suppliers and vendors for assisting them in the e-procurement process of his office.	4.68	0.72

4	An e-procurement officer received a commission from suppliers for the tender obtained by the company for supplying office equipment.	4.77	0.61
5	An e-procurement officer purposely signs a delivery order (DO) and verify the acceptance of a certain quantity of stationery supplies which is not adequate as stated on the DO.	4.74	0.68
6	An e-procurement officer suggests his wife's company supply office equipment to the department.	4.78	0.69
	An e-procurement officer purposely signs a delivery order (DO) and verify the acceptance of office equipment, which is not delivered. He pocketed the amount for himself.	4.82	0.62
8	An e-procurement officer used his position to influence the Board of Procurement to "appoint" one of his relatives to become the vendor of a procurement project.	4.81	0.61

Table 2 shows the descriptive statistics of the first independent variable, namely the attitude of e-procurement officer based on the result of the questionnaire survey. The highest mean score goes to question 3, 'An e-procurement officer should avoid conflict of interest when performing his duty' where the mean score response for the question is 4.91, which is greater than 3.00. This finding implies that on average, the respondents agreed to the statement on the importance of the attitude of e-procurement officers to ensure there is no conflict of interest while they are on duty, that with consideration on conflict of interest may influence the intention of e-procurement officers to engage in fraudulent behaviour. The lowest mean score goes to question 4, 'I would treat all procurement information and documents under conditions of strict confidentiality' where the mean score

response for the question is 2.29, which is lower than 3.00. The finding implies that on average, the respondents disagreed with the statement on the confidentiality of the information and documents related to e-procurement. This information might be leaked out by any officers or individuals who are indirectly involved in the e-procurement process.

TABLE 2  
Attitude of E-Procurement Officer

No.	Item	Mean	SD
1	Fraud caused more problems in the e-procurement process.	4.48	0.81
2	E-procurement fraud in the public sector is a serious threat to a country.	4.46	0.80
3	An e-procurement officer should avoid conflict of interest when performing his duty.	4.91	0.35
4	I would treat all procurement information and documents under conditions of strict confidentiality.	2.29	1.80
5	Engaging in e-procurement fraud is not acceptable.	4.83	0.50
6	I would feel guilty every time I accept small value items from a vendor or supplier.	2.36	1.73
7	The risk of getting caught for e-procurement fraud is high in the Public Sector.	4.28	0.45
8	Imprisonment or a prison sentence is a wise decision for e-procurement fraud perpetrators.	2.43	1.46

Table 3 shows the descriptive statistics of the subjective norms of the e-procurement officers. The highest mean score goes to question 1, 'My family will feel disgraced if I was involved in an e-

*procurement fraud*’ where the mean score response for the question is 4.86, which is greater than 3.00. This finding implies that on average, the respondents agreed with the statement on the perception of their important persons’ or closed persons’ opinion that may influence the intention of the e-procurement officer to engage in fraudulent behaviour. The lowest mean score goes to question 7, *‘My supervisor/top management will support my argument in the Board of Procurement meeting’* where the mean score response for the question is 4.16, which is higher than 3.00. The finding implies that on average, the respondents agreed to the statement on the important person’s opinion or perception of the organisation.

TABLE 3  
Subjective Norms of E-Procurement Officer

No.	Item	Mean	SD
1	My family will feel disgraced if I was involved in an e-procurement fraud.	4.86	0.51
2	My family would be happy if I become a good e-procurement officer.	4.81	0.51
3	My family will leave me if I get caught in e-procurement fraud activities.	4.32	0.47
4	My friends believe that existing laws cannot cope with the complexities of serious e-procurement fraud.	4.26	0.44
5	My friends believe that an e-procurement officer makes extra income easily if I engage with e-procurement fraud.	4.46	0.50
6	My office colleague (e-procurement unit) will collude (conspire) with me when I engage in e-procurement fraud.	4.50	0.52
7	My supervisor/top management will	4.16	0.39

	support my argument in the Board of Procurement meeting.		
8	I don’t think other officers (other than the e-procurement unit) in my department would be willing to help me if I was involved in an e-procurement fraud.	4.52	0.52

Table 4 shows the descriptive statistics of the third independent variable that is the perceived behavioural control of e-procurement officers. The highest mean score goes to question 5, *‘I will not get involved in e-procurement fraud when moral and ethical values are the most important concern in my office environment’* where the mean score response for the question is 4.75, which is greater than 3.00. This finding implies that on average, the respondents agreed to the statement that consideration of moral and ethical values in the office environment may influence perceived behavioural control of e-procurement officers towards e-procurement fraud intention. The lowest mean score goes to question 7, *‘I will not get involved in e-procurement fraud if my supervisor offers me a good performance rating’* where the mean score response of the question is 3.95, which is higher than 3.00. The finding implies that on average, the respondents agreed to the statement that a good performance rating may affect their perceived behavioural control towards e-procurement fraud intention.

TABLE 4  
Perceived Behavioural Control of E-Procurement Officer

No.	Item	Mean	SD
1	I will not get involved in e-procurement fraud if my supervisor supervises my work seriously.	4.26	0.95
2	I will not get involved in e-procurement fraud if my top management participates and be responsible for the procurement process.	4.41	0.87



3	I will not get involved in e-procurement fraud if the action could harm an innocent person.	4.64	0.65
4	I will not get involved in e-procurement fraud if I believe the consequences of the act is immoral.	4.70	0.61
5	I will not get involved in e-procurement fraud when moral and ethical values are the most important concern in my office environment.	4.75	0.50
6	I will not get involved in e-procurement fraud if the action will intentionally harm another even to a small degree.	4.69	0.58
7	I will not get involved in e-procurement fraud if my supervisor offers me a good performance rating.	3.95	1.15
8	I will not get involved in e-procurement fraud if my management offers me more desirable duties.	3.96	1.17

## 4.0 RESULTS AND DISCUSSION

### 4.1 Pearson's Correlation Analysis

Pearson Correlation analysis was conducted to examine the strength of association between all independent variables namely attitude, subjective norms and perceived behavioural control and dependent variable namely e-procurement fraud intention.

TABLE 5  
Pearson's Correlation Analysis

Variables	E_PFI	Att	Sub Norms	PB Ctrl
E_PFI	1			
Att	0.226*	1		
SubNorms	0.266**	0.447	1	
PBCtrl	-0.48	0.416	0.197	1

\* Correlations is significant at 0.05 at level (2-tailed)

\*\* Correlations is significant at 0.01 at level (2-tailed)

Note: E\_PFI (E-Procurement Fraud Intention), Att (Attitude of E-Procurement Officer), SubNorms (Subjective Norms of E-Procurement Officer) and

PBCtrl (Perceived Behavioural Control E-Procurement Officer).

The findings of correlation analysis show that the value of the correlation coefficient between e-procurement fraud intention and attitude of e-procurement officers is 0.226 which indicates a low positive correlation between the attitude of e-procurement officers and e-procurement fraud intention ( $p < 0.05$ ). Additionally, the correlation result of 0.266 is positive and significant at  $p < 0.01$  between subjective norms of e-procurement officers and e-procurement fraud intention. However, the correlation result of -0.48 shows that there is no significant correlation between the perceived behavioural of e-procurement officers and e-procurement fraud intention.

### 4.2 Multiple Regression Analysis

Table 6 shows the attitude of e-procurement officers has a  $p$ -value of 0.060 with a significant level at  $p < 0.10$ . It indicates that the attitude of e-procurement officers has a significant positive relationship with e-procurement fraud intention. This finding supports the research hypothesis H<sub>1</sub>. The result of this study is consistent with Zulaikha et al. (2016) who mentioned that attitude can motivate any individual in e-procurement to have the intention to engage in fraud. This was also supported in the study by Lilik Purwanti (2018) that indicated a significant relationship between attitude towards behaviour and the fraud intention of procurement of goods and services. Consequently, Kashif et al. (2018) stated that there is a significant and correlative effect of attitude towards fraud intention. A similar result from Awang et al., (2016) identified that attitude in terms of professional Muslim accountants can be positively influenced to engage in fraud behaviour intention. Other than that, Cohen et al., (2008) revealed that attitudes are a key risk factor in corporate frauds. The finding is also consistent with the underlying assumptions of the Theory of Planned Behaviour where the attitude of a person to conduct such behaviour is derived from the preferences evaluation. In other

words, the more favourable the attitude towards the behaviour, the stronger shall be the individual’s intention to perform it.

TABLE 6  
Multiple Regression Analysis

Variables	Stand. Coeff.	t	Sig. (p-value)	Collinearity Statistics	
	Beta			Tol.	VIF
(Constant)		3.222	0.002		
Att	0.207	1.900	0.060*	0.683	1.464
SubNorms	0.206	2.030	0.045**	0.791	1.264
PBCtrl	-0.170	-1.702	0.092*	0.820	1.220
GEN	0.043	0.475	0.636	0.982	1.019
JPOST	-0.041	-0.446	0.656	0.976	1.025

\* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$

Note: ePFI<sub>nt</sub> (E-Procurement Fraud Intention), Att (Attitude of E-Procurement Officer), subNorms (Subjective Norms of E-Procurement Officer), pbCtrl (Perceived Behavioural Control E-Procurement Officer), Gen (Gender) and jobP (Job Position).

Concerning subjective norms of e-procurement officers with a  $p$ -value of 0.045 significant level at  $p < 0.05$ . It indicates that the subjective norms of e-procurement officers have a significant relationship at the 0.05 significance level. Hence, the hypothesis ( $H_2$ ) is supported. The result of this study is consistent with Armitage and Conner (2001) who stated that subjective norms of an individual are expected to be motivated by other perceptions to perform fraud behaviour. Other results from Anggraini and Siswanto (2015) revealed that subjective norms have a positive effect on the intention to act ethically or not concerning as a whistleblower. The finding is also supported by Awang et al. (2016) that subjective norms significantly influence fraud intention in terms of financial reporting. The findings are in line with the Theory of Planned Behaviour cited in (Cohen et al., 2010), that subjective norms have an impact on the intention to engage in fraud.

Additionally, perceived behavioural control of e-procurement officers has a  $p$ -value of 0.092 with a significant level at  $p < 0.10$ , where the result indicates a significant negative relationship between perceived

behavioural control of e-procurement officers and e-procurement fraud intention. The negative value of the standardized coefficient in perceived behavioural control reflects the opposite polarity of the respective question about perceived behavioural control and therefore, the negative extent was expected. Thus, the research hypothesis  $H_3$  is supported and accepted. The result of this study is consistent with Reni and Anggraini (2016) study where there is a negative effect of perceived behavioural control towards fraud intention. Similar results were obtained by Kiriakidis (2015) who identified that perceived behavioural control has a significant relationship towards a behaviour with motivational intentions. Kashif et al. (2018) also identified that perceived behavioural control can significantly result in e-procurement fraud intention among e-procurement officers. The finding is also consistent with the Theory of Planned Behaviour theory where perceived behavioural control reflects how far a person can control him or herself to behave.

With regards to the control variables in this study, the  $t$ -value of 0.475 is less than 2 which indicates a weak relationship between the control variable and dependent variable (Hair. et. al., 2006). Therefore, there is no significant relationship between gender and e-procurement fraud intention. Next, the job position  $t$ -value of -0.446 is less than 2 which indicates a weak relationship between the control variable and dependent variable (Hair et al., 2006). Therefore, there is no significant relationship between job position and e-procurement fraud intention. The results of this study are consistent with Dreber and Johannesson (2008) research where the role of gender in deceptive behaviour can be mixed and unclear because of various factors to be determined on the intention of such behaviour includes the monetary benefit, cultural environment, biological features, marital status, and others.

## 5.0 CONCLUSION

This research has revealed impressive outcomes which focused on the statistically significant relationship between the attitude, subjective norms and perceived behavioural control of e-procurement officers and e-procurement fraud intention. What does this mean for the Malaysian public sector? According to Price Water Cooper (2015), it is important to understand more about potential fraud behaviour because a fraudster varies and changes from time to time. E-procurement fraud is a controversial, sensitive and highly complex issue in the Malaysian public sector. The e-procurement system in the Malaysian public sector requires a form of full support in the organisation, optimum resources, the absences of clear ethical policies, and a responsive top management team. In this regard, the Malaysian public sector has provided a comprehensive system of policies, procedures, and controls effectively by thwarting all occurrences of improper payments, whether by government employees or the beneficiaries of government programs. However, it is just not possible to prevent e-procurement fraud in the Malaysian public sector in instances. The risks always exist. Hence, control systems are never perfect, and both systems and people are frail. Therefore, organisations need to understand that attitude, subjective norms and perceived behavioural of e-procurement officers have the possibility to influence any person to engage in procurement fraud. Consequently, it is vital that the Malaysian public sector sets an appropriate tone at the top, one that demonstrates a commitment towards honesty and ethical behaviour, then followed by the bottom line. By having more feasible objectives and appropriate policies and procedures as part of the e-procurement process in the Malaysian public sector, ultimately it will help to facilitate e-procurement issues to be more transparent with high professional standards of knowledge, skills, and integrity. Digital technologies and open data provide new opportunities and also new risk throughout

the public procurement cycle. Therefore, it is crucial to recognise that the entire public procurement stages are a high-risk activity that requires governments to apply transparency and integrity, adoption of measures against conflict of interest and corruption, as well as a quality and competent e-procurement officer in managing procurement environment 'stress'. Having said that, good practices in the Malaysian public sector may reduce any potential fraud behaviour among e-procurement officers and it is imperative to have a continuously ethical environment and procurement entities value. This would contribute to the ease in the e-procurement process and reduce the perceived stress situation among the e-procurement officers in the Malaysian public sector.

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