

# *Testing of Fraud Diamond Theory Based on Local Wisdom on Fraud Behavior*

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**Abstract**—This study aims to examine the elements of fraud diamond theory based on local wisdom on fraud behavior. This research was conducted in all universities in Buleleng Regency, Bali. This research uses a quantitative method by using 40 finance department employees in all universities in Buleleng Regency as respondents. The results of this study are that before moderating variable Tri Kaya Parisudha presents, all independent variables namely pressure, opportunity, rationalization and capacity have positive effect on fraud behavior. But after entering the moderating variable, pressure and capacity have a negative effect while opportunity and rationalization values are decreasing.

**Keywords**—*Fraud diamond theory; Tri Kaya Parisudha; Fraud behavior*

## I. INTRODUCTION

For every company, financial statements are important information that describes the condition of the company. However, uncovered financial statements may be prepared to cover fraud within the company. Singelton and Aaron (2010) define fraud as an act that includes deception, cunning, and dishonesty and ways that are not feasible to deceive others for their own benefit, causing harm to others. According to Albrecht, Albrecht, and Albrecht (2006), every organization is vulnerable to fraud, which is an act committed to get something valuable from others illegally, either by physical force or deception. Association of Certified Fraud Examiners (ACFE, 2014) and Ruankaew (2016) state that many organization lost 5% of income per year due to fraud and until 2013, the gross world product has \$ 3.7 trillion of potential losses due to fraud behavior. With this fraud behavior, it is important for organizational leaders to understand the root causes of fraud behavior and be able to manage the risks (Ramamoorti, 2008). Related to fraud behavior, it does not only occur in the private sector, but it can also occur in the public sector, including in universities.

One of the frauds that occurs in universities is corruption. Corruptions are often carried out by manipulating records, eliminating documents, and mark-ups that are detrimental to

the country's finances or economy. Indonesian Corruption Watch (ICW) notes that the education sector is the third most corrupt sector in Indonesia. ICW notes that during 2003-2013, budget embezzlement and inflation became the most common modus of corruption in education budget. Some cases including University X as one of the universities in Indonesia that could not escape from this fraud problem. With the status as a Public Service Agency public university, University X has the privilege of finding sources of funds from the public through its business activities. Unfortunately, the status of Public Service Agency has not yet fully conducted as expected. In 2013-2014, several University X officials have been declared to had involved in corruption cases of collaborative projects and distance learning equipment procurement projects.

This research aims to test the fraud diamond theory based on local wisdom on fraud behavior in universities located in North Bali. Elements of fraud diamond theory (pressure, opportunity, rationalization, and capability) are proxied by variables so they can be more easily measured. Pressure is proxied by compensation satisfaction, organizational justice, and situational pressure in the form of supervisor authority; opportunity is proxied by effectiveness of internal control, law enforcement/rules, and information asymmetry; rationalization is proxied by variables of organizational culture and organizational commitment; and capability is proxied by position in work, level of moral reasoning, and competence (Indriani and Suroso., 2016). In addition, this study uses the concept of local wisdom in behavior, namely Tri Kaya Parisudha. Tri Kaya Parisudha (TKP) is the three forms of action and human behavior that must be purified, namely in the aspects of mind, words and deeds. TKP is a form of Balinese local wisdom that becomes a reference for behavior in daily life (Kepramareni et al., 2014; Swardhana et al., 2015; Rosalina, 2017).

**II. LITERATURE REVIEW**

**A. Fraud**

Fraud is an action that taken intentionally, consciously, knowingly and willingly to misuse everything that is owned jointly. According to Kalubanga et al. (2013), fraud is an act of deliberate concealment, negligence or aberration of truth to (1) gain an illegitimate or unfair advantage (2) encourage the acquisition of valuable items or (3) cause losses. Whereas according to Manurung and Hadian (2013), fraud can be defined as "Any expression of actions, omissions or concealment to deceive others with their particular disadvantages, misstatements or concealment by referring to some material facts for transactions made with knowledge of their falsehood, and or intentionally hiding the truth or mistake to deceive others so that the person suffered a loss". Duffield and Grabosky (2001) argue that someone who commits fraud is someone who is selfish and all his or her desires must be realized even in any ways. The person who commits fraud is also has good confidence, experience and knowledge.

**B. Fraud Diamond Theory**

Fraud diamond theory is a development of the previous theory, namely the fraud triangle theory. Fraud triangle theory was introduced by Cressey (1953). According to Dorminey, Fleming, Kranacher, and Riley (2010), the authenticity of this theory stemmed from Sutherland's creation of "white-collar crime" term. Fraud triangle theory consists of three elements: (a) perceived pressure, (b) opportunity, and (c) rationalization. Based on this theory, fraud is impossible without these three elements, and the severity of fraud depends on the strength of each element (Howe and Malgwi, 2006). Wolfe and Hermanson (2004) introduced an extension of fraud triangle theory by adding an additional element, namely capacity, so this theory was later called fraud diamond theory.

Wolfe and Hermanson (2004) and Ruankaew (2016) argue that although perceived pressures or incentives may exist along with opportunities and rationalizations, fraud is not possible unless the fourth element is present: capacity. In other words, potential actors must have the skills and ability to actually commit fraud. In addition, according to Kassem and Higson (2012) and Sorunke and Abayomi (2016), many frauds will not occur without the right people with the right ability to commit fraud. In other words, potential fraud perpetrators must have the skills and ability to commit fraud.

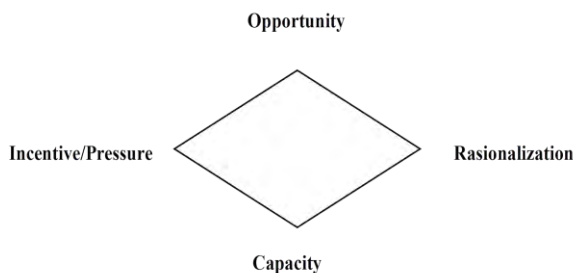


Fig. 1. Fraud diamond theory elements (Wolfe and Hermanson, 2004)

According to Ruankaew (2016), the elements of fraud diamond theory are: (1) Incentive/pressure. Fraud behavior usually arises from the pressure obtained by employees in an organization. Albrecht, Hill, et al. (2006), Albrecht, Turnbull, Zhang, and Skousen (2010), and Howe and Malgwi (2006) argue that fraud behavior is caused by economic pressures such as greed, lifestyle, large expenses or personal debt, loan problems, financial losses and inability to meet financial plans; (2) Opportunity. Opportunity is the second element that supports fraud behavior. According to Rae and Subramaniam (2008), someone will commit fraud if there is an opportunity and lack of control in his or her company. In addition, someone who has the opportunity will utilize his or her abilities and expertise to commit fraud; (3) The third element of fraud diamond theory is rationalization, which is a thought that justifies an action as a natural behavior, which is morally acceptable in a normal society. Jackson, Holland, Albrecht, and Woolstenhulme (2010) argue that if someone perceives a particular action as a fraudulent action, it is impossible for him or her to be involved in a fraudulent action; (4) Capacity. Someone who has a position in a company is likely to commit fraud. According to Wolfe and Hermanson (2004), many large-scale frauds are unlikely to occur if there are no people with special capabilities in the company.

**C. Tri Kaya Parisudha**

For Balinese people, who are largely Hindu, customs and culture are inseparable in everyday life. One of the cultures that is the basis of Balinese people's ethical behavior is Tri Kaya Parisudha (Swardhana et al., 2015). The term Tri Kaya Parisudha consists of Tri which means three, Kaya means motion, effort, and Parisudha means holy or chastity. In general, Tri Kaya Parisudha means three movements of actions and behavior that must be sanctified as well as possible. Tri Kaya Parisudha consists of three elements, namely (1) Manacika, which means to think good and holy, (2) Wacika, which means to say good and right, and (3) Kayika, which means to act good and honest.

Based on the existing theories and previous research, the hypotheses proposed in this study are:

- H1: With the presence of the local concept of Tri Kaya Parisudha, pressure will negatively affect fraud behavior.
- H2: With the presence of the local concept of Tri Kaya Parisudha, opportunity will negatively affect fraud behavior.
- H3: With the presence of the local concept of Tri Kaya Parisudha, rationalization will negatively affect fraud behavior.
- H4: With the presence of the local concept of Tri Kaya Parisudha, capability will negatively affect fraud behavior.

**III. RESEARCH METHODS**

This study used a quantitative approach using a survey method through questionnaires as the instrument of data collection. Questionnaires were given to the research subjects with a total of 40 respondents to obtain information about the

extent of fraud diamond theory based on Tri Kaya Parisudha values in detecting fraud. The respondents are the head and financial staffs of all universities in Buleleng Regency, Bali. Data collection was conducted using questionnaires and the results were tested using moderate regression analysis (MRA).

#### IV. RESULTS AND DISCUSSION

##### A. Results

TABLE I. THE RESULTS OF MODERATE REGRESSION ANALYSIS (MRA)

| Model      | Unstandardized Coefficient | Standardized Coefficient | Standardized Coefficient | Sig.  |
|------------|----------------------------|--------------------------|--------------------------|-------|
|            | B                          | Std. Error               |                          |       |
| (Constant) | 10.209                     | 6.944                    |                          | 0.154 |
| X1         | -0.035                     | 0.022                    | -0.327                   | 0.114 |
| X2         | 0.005                      | 0.054                    | 0.0029                   | 0.925 |
| X3         | -0.012                     | 0.034                    | -0.163                   | 0.723 |
| X4         | -0.032                     | 0.036                    | -0.303                   | 0.374 |
| M          | -0.093                     | 0.110                    | -0.188                   | 0.407 |
| X1*M       | -0.001                     | 0.003                    | -0.096                   | 0.680 |
| X2*M       | 0.000                      | 0.004                    | 0.047                    | 0.917 |
| X3*M       | 0.000                      | 0.004                    | -0.024                   | 0.923 |
| X4*M       | -0.001                     | 0.005                    | -0.031                   | 0.897 |

<sup>a</sup>. Dependent Variable: ABRES\_2

This study was conducted on 40 employees of financial department at all universities in Buleleng Regency. The respondents were randomly selected and invited to become the participants of this study. Participants consisted of 8 men (20%) and 32 women (80%). Most participants were between 30-40 years old. The participants' final educational level were mostly bachelor degree.

The MRA results in Table I shows that there are decreases in values after the moderation is carried out. After being moderated by Tri Kaya Parisudha, the values of the dependent variable decreased and even led to a negative direction. The pressure variable previously had a positive value of 0.178, but after the moderation is carried out, it has a negative value of -0.001, as well as capability variable. Meanwhile the value of opportunity and rationalization (0.064 and 0.119 respectively) decreased to 0.000 after being moderated by Tri Kaya Parisudha.

##### B. Discussion

According to the fraud diamond theory, there are four elements that influence a person to commit fraud, namely pressure, opportunity, rationalization and capability (Wolfe and Hermanson, 2004). In accordance with the concept of Tri Kaya Parisudha (TKP), which consists of three elements, namely Manacika, which means to think good and holy, Wacika, which means to say good and right, and Kayika, which means to act good and honest, so it can be concluded that the presence of good and holy thoughts and words will manifest good and right actions (Swardana, 2015).

This study found that pressure has a positive effect on fraud behavior. The results of this study are in line with the study conducted by Murphy and Mayhew (2013), which state that the existence of supervisory instructions/authorities improves reporting fraud behavior. However, after being moderated by

Tri Kaya Parisudha, this study found an opposite direction, that is pressure has a negative effect on fraud behavior. This result is in line with the research of Swardhana et al. (2015) which state that the concept of Tri Kaya Parisudha has an influence on one's behavior. Based on this, H1 proposed is supported, that is with the presence of the local concept of Tri Kaya Parisudha, the amount of pressure negatively affects fraud behavior.

Similar results are found in capability. This study found that capability has a positive effect on fraud behavior. Consistent with the study conducted by Wolfe and Hermanson (2004), large-scale frauds are unlikely to occur if there are no certain people with special capabilities that exist within the company. However, after being moderated by Tri Kaya Parisudha, this study found an opposite direction, that is capability has a negative effect on fraud behavior. This result is in line with the study conducted by Swardhana et al. (2015), that the concept of Tri Kaya Parisudha has an influence on one's behavior. Based on this, H4 proposed is supported, that is with the presence of the local concept of Tri Kaya Parisudha, the level of capability negatively affects fraud behavior.

For opportunity and rationalization, consistent with the study conducted by Wolfe and Hermanson (2004), this study found that opportunities and rationalization have a positive effect on fraud behavior. After being moderated by Tri Kaya Parisudha, this study found a decrease in values for both opportunity and rationalization (0.064 and 0.119 respectively) to 0.000, but no change of direction for both variables. This is consistent with the study conducted by Swardhana et al. (2015) which state that the concept of Tri Kaya Paris has an influence on one's behavior. Based on the results, H2 and H3 proposed are not supported.

#### V. CONCLUSIONS

Based on the results obtained, this study concludes that fraud behavior can be done based on the presence of pressure, opportunity, rationalization and capability. However, with the application of local wisdom-based ethical values, namely Tri Kaya Parisudha, fraud behavior can be minimized and even leads to a negative direction. This means that whatever the pressure, opportunity, rationalization and ability a person has to commit fraud, as long as a person has good thoughts, words and behavior, fraud behavior can be minimized.

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#### REFERENCES

- [1] Association of Certified Fraud Examiners, Report to the Nations on Occupational Fraud and Abuse. Retrieved from <http://www.acfe.com/rtnn/docs/2014-report-to-nations.pdf>ACFE, 2008. Report to The Nation on Occupational Fraud and Abuse (On-line), 2006. Accessed on March 20, 2018.

- [2] C. Albrecht, C. Turnbull, Y. Zhang, and C. J. Skousen, "The relationship between South Korean chaebols and fraud," *Management Research Review*, vol. 33 issue 3, pp. 257-268, 2010.
- [3] D. R. Cressey, *Other People's Money*. Montclair, NJ: Patterson Smith, 1953, pp. 1-300.
- [4] D. T. H. Manurung and N. Hadian, "Detection fraud of financial statement with fraud triangle," *Proceedings of the 23rd International Business Researcher Conference*, pp. 18-20, 2013.
- [5] D. Wolfe and D. R. Hermanson, "The fraud diamond: Considering four elements of fraud," *The CPA Journal*, vol. 74 issue 12, pp. 38-42, 2004.
- [6] G. Duffield and P. Grabosky, *The Psychology of Fraud*. Canberra: Australian Institute of Criminology, 2001.
- [7] G. M. Swardhana, I. B. S. D. Jaya, and I. G. A. P. Kartika, "Criminal policy in high school criminal and delinquency countermeasures: A study of the application of social control theory and local wisdom in Bali," *Jurnal Magister Hukum Udayana*, vol. 4 issue 1, pp. 28-47, 2015.
- [8] Indriani and Suroso, "Application of the fraud diamond theory concept in detecting fraud behavior," *Simposium Nasional Akuntansi XIX*, 2016.
- [9] J. W. Dorminey, A. S. Fleming, M. J. Kranacher, and R. A. Riley Jr, "Beyond the fraud triangle: the CPA journal," vol. 80 issue 7, pp. 17-23, 2010.
- [10] K. Jackson, D. Holland, C. Albrecht, and D. Woolstenhulme, "Fraud isn't just for big business: Understanding the drivers, consequences, and prevention of fraud in small business," *Journal of International Management Studies*, vol. 5 issue 1, pp. 160-164, 2010.
- [11] K. Rae and N. Subramaniam, "Quality of internal control procedures: Antecedents and moderating effect on organisational justice and employee fraud," *Managerial Auditing Journal*, vol. 23 issue 2, pp. 104-124, 2008.
- [12] M. A. Howe and C. A. Malgwi, C. A., "Playing the ponies: A \$5 million embezzlement case," *Journal of Education for Business*, vol. 82 issue 1, pp. 27-33, 2006.
- [13] M. Kalubanga, P. Kakwezi, and D. Kayiize, "The effects of fraudulent procurement practices on public procurement performance," *International Journal of Business and Behavioural Science*, vol. 3, January 2013.
- [14] P. D. Rosalina, "The implementation of Hindu philosophy "Tri Kaya Parisudha" for sustainable tourism in Munduk Village, North Bali," *JUMPA*, vol. 3 issue 2, pp. 223 – 237, 2017.
- [15] P. Kepramareni, M. Sudarma, G. Irianto, dan A. F. Rahman, "Sekala and niskala accountability practices in the clan-based organization MGPSSR in Bali, Indonesia," *Scientific Research Journal*, vol. 2 issue 2, pp. 1-5, 2014.
- [16] R. Kassem and A. W. Higson, "The new fraud triangle model," *Journal of Emerging Trends in Economics and Management Science*, vol. 3 issue 3, pp. 191-195, 2012.
- [17] R. P. Murphy and B.W. Mayhew, "The impact of authority on reporting behavior, rationalization and affect," *Contemporary Accounting Research*, vol. 31 issue 2, pp. 420-443, 2013.
- [18] S. Ramamoorti, "The psychology and sociology of fraud: Integrating the behavioral sciences component into fraud and forensic accounting curricula," *Issues in Accounting Education*, vol. 23 issue 4, pp. 521-533, 2008.
- [19] Sorunke and O. Abayomi, "Personal ethics and fraudster motivation: The missing link in fraud triangle and fraud diamond theories," *International Journal of Academic Research in Business and Social Sciences*, vol. 6 issue 2, February 2016.
- [20] T. Ruankaew, "Beyond the fraud diamond," *International Journal of Business Management and Economic Research (IJBMER)*, vol. 7 issue 1, pp. 474-476, 2016.
- [21] T. Singleton and J. Aaron, *Fraud Auditing and Forensic Accounting*, 3rd ed. New Jersey: John Wiley & Sons, Inc., 2010.
- [22] W. S. Albrecht, N. C. Hill, and C. C. Albrecht, "The ethics development model applied to declining ethics in accounting," *Australian Accounting Review*, vol. 16 issue 1, pp. 30-40, 2006.