Indonesian Governors’ Gender, Age, Education Level, Educational Background, Tenure and Their Tendency of Conducting Fraud

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ABSTRACT: This study aims to determine the effect of governor characteristics on the occurrence of fraudulent activities in the Provincial Government in Indonesia. Gender, age, education level, education background and tenure are used as proxies for the demographic characteristics of governors. Data were collected from the Corruption Eradication Commission, the Supreme Audit Board and Indonesian Corruption Watch and analyzed using panel data regression. The results of this study indicate that the governors with accounting background are more likely not to be involved in fraud, while tenure has no effect on fraud. An interesting finding was obtained that education level and age have a negative effect on fraud. Fraud is higher when the governor is younger and has a lower level of education. This has implications for policy makers in Indonesia in preventing fraud by making regulations that take into account the demographic characteristics of candidates for governor in Indonesia. The results also show that the demographic characteristics of the Governor play an important role in preventing fraud.

Keywords: Gender, Age, Education Level, Educational Background, Tenure, Fraud.

I. INTRODUCTION

Fraud in Indonesia has become a virus and a serious threat [1]. Indonesia is the most fraudulent country in Asia Pacific after China [2]. Fraud activity is still significant in Indonesia [3], although various programs and actions have been taken to eradicate it [4], such as the establishment of the Corruption Eradication Commission through the issuance of Law Number 31 of 2002, involving state administrators such as ministers, governors, and regents who should play a role in preventing fraud [5]. Several fraud cases that have involved the governor, are found in North Sumatra related to legalization of accountability and in Southeast Sulawesi related to permits for natural resource exploration in Indonesia [6]. In addition, Indonesia Corruption Watch (ICW) also documented that fraud in Indonesia increased to 576 cases and 1298 suspects in the 2017 period compared to the 2016 period of only 482 cases and 1,101 suspects. Therefore, it is necessary to conduct a more in-depth study related to fraud in Indonesia by exploring the characteristics or personality values of the governor. Study [7] reveal that individual values and personality are important in preventing or reducing fraud. Even though an organization feels high pressure and opportunity, leaders and employees with high integrity will help prevent fraud and vice versa [8].

Study [9] states that as executives have limited information processing abilities and limited rationality, it is useful to study demographic variables because they serve as filters for individuals’ interpretations of situations and the choices they make. Since obtaining and measuring data on individual executive values
and personalities is not possible, study [9] suggests using demographic characteristics as proxies for this construct. Demographic characteristics consist of gender, age, education level, educational background and years of service or experience. The literature in cognitive psychology, economics and behavioral management has documented that significant gender differences exist in risk aversion, conservatism and ethical behavior [10]. Evidence shows that gender is a significant factor in determining ethical behavior and women are more ethical than men [11].

Executive age is empirically linked to cognitive development and awareness [12]. Researchers found a negative relationship between age and behavior due to the impact of life experiences [13]. In a white-collar crime study, [14] reported that young managers were more vulnerable to social and organizational pressures. Therefore, older executives will present higher quality and less fraudulent financial reports [15]. Study [16] states that there are significant differences in ethics among individuals with different educational levels. The ethics literature documents that individuals with higher levels of education are more ethical than those with lower levels of education [17]. Some literatures show that individuals with higher levels of education may command more job opportunities and higher compensation, causing them to be overly optimistic or more aggressive than others [18]. Work in [19] state that executives with longer tenures are more likely to use their managerial power to manipulate earnings. Executives usually manage earnings in the early years of their tenure (during the first three years of executive tenure) by overestimating expenses, so that in the following years the company’s profits will increase and they can take advantage of it [20]. Study [18] find executives holding business degrees appear to follow a more aggressive average strategy. The financial experience of executives with business degrees reduces the quality of the company’s internal controls and tends to have accounting errors [21]. Because their education might not promote long-term moral growth, businesspeople in the accounting profession and those with an accounting background tend to have lower levels of moral reasoning and ethical development, according to an experimental accounting study designed to develop and test hypotheses regarding the impact of an executive accounting background.

Provincial governments in Indonesia led by governors have the duties and responsibilities to administer government in a transparent and accountable manner. The demographic characteristics of the governor such as gender, age, education level, length of service and educational background are important in realizing the governor’s duties and responsibilities, including preventing or reducing fraudulent activities in Regional Governments in Indonesia. However, the data show that female governors, old age, highly educated, and accounting background are involved in the occurrence of fraud in Indonesia. There is even a governor who commits fraud in the first period of tenure.

This study aims to evaluate the effect of governor characteristics consisting of gender, age, education level, educational background and tenure on the occurrence of fraudulent activities in the Provincial Government in Indonesia. Therefore, this research will contribute practically for many parties; first, encouraging policy makers to strengthen fraud prevention in certain provinces that have a high level of fraud by taking into account the characteristics of their governors, second, encouraging regulators to evaluate regulations related to the requirements to become a candidate for governor in Indonesia and third, this research assists the auditor in considering the scope and risk of the audit.

RQ1: Can gender, age, educational level, educational background, tenure and gender of the Indonesian governors be associated with their conduct of fraud?

- RQ1 a: Can gender be associated with the Indonesian governors conduct of fraud?
- RQ1 b: Can age be associated with the Indonesian governors conduct of fraud?
- RQ1 c: Can educational level be associated with the Indonesian governors conduct of fraud?
- RQ1 d: Can educational background be associated with the Indonesian governors conduct of fraud?
- RQ1 e: Can tenure be associated with the Indonesian governors conduct of fraud?

RQ2: To what extent, do gender, age, educational level, educational background and tenure of the Indonesian governors be associated with their conduct of fraud?
II. LITERATURE REVIEW

1. AGENCY THEORY

Study [22] defined an agency relationship as the hiring of another individual (such as management) to do tasks on behalf of the owner by the owner, shareholder, or agent. Agents are given some decision-making power in the work. In order to increase the value of the firm and the owner’s net worth, agents are required to manage the business in the owner’s best interests. Study [23] looked at how managers’ increasing control over the company’s operations creates potential for deception that harms shareholders. Managers can act as agents and use firm assets for their personal gain since there are no shareholders to effectively control ownership, which causes conflict between shareholders and managers. By linking deceitful behavior to concepts like as advantage selection, moral hazard, and information asymmetry, this situation fosters the development and maintenance of agency theory [22,24,25]. Agency theory then provides the processes that try to match managers’ actions with shareholders’ interests [26]. As part of the process, managers receive incentives as a reward for their efforts to maximize shareholder wealth. Nevertheless, fraud cases demonstrate that this plan really gives managers the tools to fabricate financial reports, increasing their wealth through incentives for share ownership [27]. Agency theory states that the stock market, business owners, and securities analysts are examples of external governance systems that can deter managers from acting opportunistically. [28,29] cast doubt on the core tenets of agency theory, contending that external pressure from securities and stock market analysts actually fosters managers’ propensity for moral hazard through financial statement falsification. Agency theory states that one of the board of directors’ primary responsibilities is to supervise and manage the company’s managers [22]. In order to settle any agency disputes that may develop between managers and shareholders, directors are responsible for paying shareholders or dismissing managers who do not increase the company’s worth [30]. The qualities of the board of directors are essential to maximizing its impact on the business’s operations. Features Members of the board of directors will monitor managers more closely and deal with problems [31]. These characteristics include age, gender, education level, number of years worked, and educational background. Examining the components of agency theory entails assuming that having more women on the board of directors will help the company since it will allow the board to oversee the managers of the company in a more inventive and creative manner.

Furthermore, less social conflicts between different groups will arise from the inclusion of women on the board of directors [32]. However, agency theory warns that if women are marginalized and kept out of important business decisions, having them on the board might not be worth it. Taking into account that removing women from the board of directors will result in decreased potential profits and poorer standards of ethics when it comes to running a corporation. Study [33] asserts that the principal-agent relationship is ubiquitous, meaning that it can exist in both public and private sector organizations [34]. Study [34] asserts that public organizations can implement agency theory. According to [35], a number of principal-agent relationships form the foundation of contemporary democracy. [35] made a similar statement when he used agency theory to describe the economic idea of public sector organizations. In comparison to the private sector, principal-agent relationships are more prevalent and complex in the public sector. As a result, principals and agents who each seek their own interests inhabit public sector organizations [36]. In the public sector, agency connections can also take the shape of delegation relationships, according to [37, 38]. The people’s delegation to the parliament, the parliament to the government, the president and prime minister to the minister, and the government to the bureaucracy are some examples of these interactions. Study [39] states that the most common relationships between principle and agent in the public sector are those between the people and elected candidates, tax payers and elected officials, parliament and public authorities, central government and local governments, public authorities and government employees, and public authorities and contractors/vendors. From the foregoing summary of the literature, it can be deduced that the relationship between principle and agent in Indonesia’s public sector can take the shape of a relationship between the Governor, the RPRC, and bureaucracies like the RWU. In the public sector, principles apply to the people or the RPRC as well as the government and bureaucracy. Agents may also be appointed by the Governor, the RPRC, or the Bureaucracy.

Public sector principles, such as the expectation of the general public, demand the best performance from their representatives, such as the governor and the RPRC, in order to maximize state wealth. Sound financial standing, a strong internal control system, and moral conduct all contribute to this performance, which makes the principle successful. Agents must effectively and efficiently manage state finances given the relationship between the principle and the agent in order to maximize state wealth and avoid financial stress. To handle opportunities, rationalization, and management turnover, agents must create a successful recruitment model, administer coaching, and gather the norms and procedures needed to fortify the internal control system. Principals must, however, consider the attributes of agents, including tenure, gender, age, and degree of education, considering that local governments still behave unethically and perform poorly. Since many studies [15, 40-46] show that executive qualities affect performance and behavior. Agency theory must guide decisions about how to manage the state’s finances, including investments, assets, income, expenses, and community development. Efficient state competitions can be used to improve financial circumstances, including finances, financial performance, financial goals, and regional financial independence. If managed well, state assets can finance the development of internal control systems and employee morale while easing financial strain.

2. FRAUD

Study by [47] describes fraud as a deliberate misconduct or concealment of real facts for the benefit of yourself and others through the seizure or the theft of other people’s assets or money. According to [48], fraud is an act or negligence that is deliberately aimed at deceiving others, harming others, and benefiting the perpetrator. Furthermore, fraud according to [49] is a violation of internal policies, laws, and regulations carried out for personal gain at the expense of others or. Some literature also describes fraud as victim losses caused by deliberate actions and negligence intended to deceive others and benefit the perpetrator [50]. According to Free and [51], fraud is a deliberate, illegal, or highly unethical act committed during a person’s working time. Furthermore, according to [52], fraud is a concept that is often conceived, but its characteristics are often ignored. The definitions of fraud in the literature and institutions above vary, but they are all basically related to management dishonesty. Corporate fraud, for instance, is described as a crime committed by management through the theft of money, property, or classified data, account abuse, procurement frauds, wage fraud, misrepresentation of accounting, inappropriate journal voucher, expenditure claims, fraudulent jobs, bribery, and corruption. Study [53] Corporate securities fraud, according to [54], is defined as a management error that results in material losses to shareholders or other stakeholders, including suppliers, customers, and creditors. A study by ACFE indicated that there were 2,504 cases of fraud worldwide from January 2018 to September 2019 with total losses of more than $3.6 billion [47]. With losses estimated at 5% of total annual revenue, this figure represents cases of scam to be dealt with by millions of companies, government agencies, and non-profit organizations. 856 cases occurred in the United States and Canada, 301 in Africa, 198 in Asia Pacific, 128 in Western Europe, 103 in Southeast Asia, 127 in the Middle East and North Africa, 101 in Latin America, and 95 in Eastern and Central Europe.

The deliberate theft of government funds through fraud or other unfair means is known as “government fraud” in the public sector [55]. Based on the above definition, it can be concluded that fraud is an act against the law committed intentionally by management in the business or public sector, such as managers, governors, or officials that benefit the perpetrator or other parties while at the same time harming the victims of either individuals, institutions, or organizations. The PWC Global Economic Crime Survey, showed 37% of respondents said that government agencies or state-owned enterprises had been victims of economic crime in the previous 12 months. As a result, compared to the private sector, the public sector is responsible for most fraud-related activities worldwide [56]. Moreover, according to [57], there is 46.5% more fraud in the public sector than in the private sector, which is only 37.7%. Specifically, ACFE Indonesia conducted a survey in Indonesia and found that the most affected organizations of fraud are the public. The Act No. 31 of 1999, states that fraud in Indonesia is defined as theft of public funds, bribery, imprisonment of officials, blackmail, fraud, interference with procurement interests, and gratification [58]. All fraudulent behaviour is considered corruption in Indonesia [59]. Therefore, with a percentage of 64.4%, corruption is the most significant type of fraud in Indonesia [60]. If you look at the corruption perception index, then Indonesia is one of the countries with the worst fraud rankings in the world, with a score below 50 from 2017-2022. Study [61] find
that female CEOs are more conservative than male CEOs regarding financial reporting. However, conflicting evidence in Australia found that female partners identified fewer going-concern decisions for clients experiencing financial difficulties [62]. Other studies have shown that female CFOs are more conservative, risk averse and ethical than male CFOs. Study [63] confirm that increased representation of women on the company’s board of directors is associated with a decreased probability of fraud [42] find that the presence of at least one female lead reduces the likelihood that the firm will engage in litigation for fraudulent financial reporting. Gender differences in their tolerance for fraud have also become an important discussion in the public sector [64]. The research findings reveal that the presence of more women in government will have an impact on reducing corruption. Women politicians face greater social pressure than men when faced with corruption, so they tend to inhibit and reduce corruption and bribery in the public sector [65]. As in Brazil, women in public office use their power to improve services to the community and engage in reducing corruption.

A study by [66] states that older executives will acquire more knowledge base to make choices and decisions than younger executives. The growing age will lead to more efficient and accurate policies [67]. Therefore, compared to a younger CEO, an older executive will find it more difficult to justify accounting fraud. An established social circle, prospective retirement income, and financial and career security are the main concerns of older CEO [68]. Fraud is no longer looking at age. Based on ICW data in 2020, there were 393 corruption actors in the Indonesian government, 14 people were under 30 years old, while the remaining 379 people were over 30 years old. The data were not much different from the ACFE survey in Indonesia in 2016 which revealed that the most fraud perpetrators were 36-45 years old and at least 56-65 years old, while the 26–35 years old perpetrators had reached 9%. Furthermore, ACFE conducted a survey in Indonesia in 2019 and reported that the largest proportion of fraudulent activity was still aged 35-45 and at least 56-65 years old, while perpetrators aged 26-35 years increased to 19%.

Education is a process of character development. Therefore, the higher a person's education will have an impact on character building. Furthermore, because some forms of fraud involve intricate strategies, managers may need to possess a greater degree of knowledge. For instance, altering accounting procedures or estimations when presenting a specific transaction in financial statements is how accrual-based earnings manipulation is accomplished [15]. Higher education levels are linked to less dishonest financial reporting, according to earlier study. On the other hand, some financial statement frauds call for a specific degree of financial knowledge that can be obtained via formal schooling. Education is also a requirement for someone to run for governor, with the hope of improving government performance in Indonesia. However, in Indonesia, state administrators with higher education are still heavily involved in fraudulent activities. The ACFE survey in Indonesia in 2016 showed that the most fraud perpetrators were undergraduate and master's degrees. Although the perpetrators of fraud have at least doctoral education, the involvement of fraud perpetrators with bachelor’s and master’s degrees shows that the level of education in Indonesia has not had a significant impact on fraud prevention.

Study [69] pay attention to how the accounting expertise of CEOs affects earnings management and conservatism. The study shows that CEOs with an accounting education background have lower levels of accounting conservatism, but firms do not show higher levels of earnings management. It can also help to detect accounting fraud. Study [70] also says that CFOs with accounting backgrounds play an important role in determining the level of tax avoidance. In Indonesia, educational background has not been a determinant of someone to serve as governor. Although some research findings reveal that accounting education background has an impact on fraud, this is not a policy in the nomination of governor in Indonesia. If seen from the KPK data, the most fraud perpetrators are economic and technical education backgrounds, while only 1 (one) person has an accounting education background.

Study [71] show that CEO tenure has a positive effect on earnings management. KPMG (2016) shows that as many as 38% of frauds occur in the service period of more than 6 years, 19% work 1-4 years, 14% work period 4-6 years and as much as 2% less than 1 year. Study [73] also identifies that most of the fraud perpetrators have served more than 10 years, which is 44%, 38% of 5-10 years of service, 17% of 1-5 years of service and 1 year of service not more than 1 year. % Based on the data presented, the longer the tenure, the more potential to commit fraud. This is due to the experience and the known loopholes to commit fraud. After the reform era in Indonesia, Governors in Indonesia were limited to tenure for only 2 (two) terms or 10 (ten) years. This policy is intended to reduce fraudulent behaviour in Indonesia. Based on KPK data, it shows
that the average fraud activity is carried out in the second tenure. This shows that the longer the governor holds his position, the greater the opportunity for fraud to occur. The ACFE survey in 2016 revealed that the most fraud perpetrators had tenure of 6-10 years. This report is also supported by the ACFE survey in Indonesia for 2019 that the most fraudulent activity is in the tenure of 6-10 years, which is 65%.

III. MATERIAL AND METHOD

The study's predefined goals are as follows: (1) to investigate if the gender, age, tenure, educational background, and degree of education of the Indonesian governors are related to their fraudulent behavior. (2) How much can the Indonesian governors' term, gender, age, and educational background all be linked to their fraudulent behavior. The research investigates the hypotheses in relation to the goals established.

H1: Female governors are conduct not to be involved in fraud.
H2: Younger governors are conduct not to be involved in fraud.
H3: Education level has a negative effect on fraud.
H4: Governors with accounting education background are conduct not to be involved in fraud.
H5: Tenure has a positive effect on fraud.

1. DATA COLLECTION

The population of this study consisted of 34 provinces with an analysis period from 2014-2016. The entire population in this study was used as a sample. Governor characteristic data were obtained from the websites of each provincial government, while fraud data were obtained from the KPK and ICW reports. The dependent variable in this study uses fraud activities that occurred in the provincial government in Indonesia in the 2014-2016 fiscal years based on fraud records in all provincial governments in Indonesia tabulated by the KPK and ICW. The KPK and ICW tabulate fraud as an unlawful act, as stipulated in the Law based on fraud cases that occurred in the 2014-2016 period that are still in legal process or fraud cases that have permanent legal force from the court. The measurement of fraud in this study refers to [3], which uses a nominal scale by assuming a score of 0 (zero) for non-fraud and a score of 1 (one) for fraud. The independent variable used in this study is the characteristics of the governor. The characteristics of governors in this study are defined as characteristics of governors in Indonesia, which consist of gender, age, years of service, education level, and educational background. The gender of the governor is measured by a dummy variable, assuming a score of 0 (zero) if the governor is male and a score of 1 (one) if the governor is female, while the age of the governor is measured by age at the time of office in 2014, 2015 and 2016. Furthermore, the level of education is measured by the level of education at the time of office, namely SMU, given a score of 1, Bachelor 2, Master 3 and Doctoral, a score of 4. Meanwhile, educational background, namely governors with accounting education background are given a score of 1 and non-accounting is given a score of 0 and tenure is measured by the length of time served as Governor in 2014, 2015 and 2016. The following table shows the data's source and measuring for each variable:
Table 1. Source of data

<table>
<thead>
<tr>
<th>Data</th>
<th>Source of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud</td>
<td>Data was obtained from ICW, KPK and BPK reports.</td>
</tr>
<tr>
<td>Gender</td>
<td>Data was obtained from the website of each Local government and the Central Bureau of Statistics (BPS).</td>
</tr>
<tr>
<td>Age</td>
<td>Data was processed from the Local government Financial Reports that was obtained from the Ministry of Home Affairs, the Ministry of Finance of the Republic of Indonesia, the BPK, and the websites of the respective Local governments.</td>
</tr>
<tr>
<td>Governance characteristics</td>
<td>Data was obtained from the website of each Local government and the Central Bureau of Statistics (BPS)</td>
</tr>
<tr>
<td>Government characteristics</td>
<td>Data was obtained from the website of each Local government and the Central Bureau of Statistics (BPS)</td>
</tr>
<tr>
<td>Tenure</td>
<td>Data was processed from the Local government Financial Reports that was obtained from the Ministry of Home Affairs, the Ministry of Finance of the Republic of Indonesia, the BPK, and the websites of the respective Local governments.</td>
</tr>
</tbody>
</table>

Table 2. The measuring for each variable

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Proxy</th>
<th>Description (Measurement)</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud in the local governments in Indonesia</td>
<td>The number of frauds in local government in Indonesia</td>
<td>The number of frauds in local government in Indonesia</td>
<td>Maria and Gudono (2017)</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender of Governor</td>
<td>Female is scored 1 (one), and male is scored 0 (zero)</td>
<td>Sun et al. (2017)</td>
</tr>
<tr>
<td>Age</td>
<td>Age of Governor</td>
<td>Age 27-35 years old is scored 1</td>
<td>ACFE (2016b)</td>
</tr>
<tr>
<td>Age</td>
<td>Age of Governor</td>
<td>Age 36-45 years old is scored 2</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Age of Governor</td>
<td>Age 46-55 years old is scored 3</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Age of Governor</td>
<td>Age 56-65 years old is scored 4</td>
<td></td>
</tr>
<tr>
<td>Level of Education</td>
<td>Level of Education of governor</td>
<td>Graduate is scored two (2)</td>
<td>Sun et al. (2017)</td>
</tr>
<tr>
<td>Level of Education</td>
<td>Level of Education of governor</td>
<td>Magister is scored three (3)</td>
<td></td>
</tr>
<tr>
<td>Level of Education</td>
<td>Level of Education of governor</td>
<td>Doctorate is scored four (4)</td>
<td></td>
</tr>
<tr>
<td>Education Background</td>
<td>Education Background of Governor</td>
<td>Accounting background is scored 1 (one)</td>
<td>Hu et al. (2017); Khairani and Yunita Harahap (2017)</td>
</tr>
<tr>
<td>Tenure</td>
<td>Tenure of Local Government Head</td>
<td>Tenure is 5 years or less (one period) is scored 1</td>
<td>ACFE (2016b)</td>
</tr>
<tr>
<td>Tenure</td>
<td>Tenure of Local Government Head</td>
<td>Tenure is above 5 years (two period) is scored 2</td>
<td></td>
</tr>
</tbody>
</table>

2. RESEARCH DESIGN

This study looks into the connection between fraud and governor characteristics using panel data analysis. By comparing the random effects model with OLS, the Lagrang Multiplier approach was used to test for the presence of random effects and determine which approach—OLS or panel data (fixed and random effects)—is more suited for evaluating the data set. Additionally, by contrasting the fixed effect model with OLS, the F test was run to investigate the fixed effect. A substantial P value in the results of both the LM and
F tests suggests the presence of both a fixed and a random effect. The application of the panel data model (fixed effect and random effect model) is therefore more appropriate than OLS, as the null hypothesis is rejected. Based on the null hypothesis that individual effects do not correlate with regressors, the Hausman Test contrasts the fixed effects model versus the random effects mode [75]. The fixed effects model is a better fit for assessing the study’s data if the Hausman test findings reveal a significant P value, which rejects the null hypothesis. Conversely, the fixed effects model is favored if the Hausman test indicates that the P value is not significant. The multivariate analysis’s presumptions about outliers, normalcy, linearity, multicollinearity, heterocedasticity, and autocorrelation were reviewed and adjusted prior to doing the panel data analysis. The Z score test [76,77] revealed a number of univariate outlier types that were marked for additional investigation. The Mahalanobis’ distance test was applied to detect multivariate outliers [77,78]. Both graphical and numerical tests are used in this work to verify the residual normality distribution. The most widely used tests for normalcy testing are skewness and kurtosis. If the values of kurtosis and skewness are zero, the data can be regarded as having a normal distribution [77]. The next normality test was carried out using a numerical test, namely the Shapiro-Wilk test.

The next test is to check the linearity assumption by using scatter plots. The relationship between variables is called linear, if the existing plots follow the fit line. Multicollinearity is an additional assumption that needs to be verified and adjusted. In the panel data regression model, the multicollinearity test is performed to determine if the independent variables have a strong correlation or not. The detection of multicollinearity among independent variables was accomplished using a correlation matrix and the Variance Inflation Factor (VIF). It is possible to conclude that there is no multicollinearity if the VIF value is less than 10 and the 1/VIF is more than 0.01. To test heterocedasticity and autocorrelation in the common effect model, the Breusch Pagan test [79] was used, while the Wooldridge test [80] was applied to analyze the autocorrelation. When a significant P-value is found in the results, it means that autocorrelation and heteroscedasticity are present and need to be addressed. Based on the description of the research design of this study is as follows:

\[
\text{Fraud} = b_1 \text{Gender} + b_2 \text{Age} + b_3 \text{Level of education} + b_4 \text{Education background} + b_5 \text{Tenure} \tag{1}
\]

Where: \( b_1 \) regression coefficient of gender, \( b_2 \) regression coefficient of age, \( b_3 \) regression coefficient of level of education, \( b_4 \) regression coefficient of education background, \( b_5 \) regression coefficient of tenure coefficient. All off the regression coefficients were calculated using STATA.

### IV. DATA ANALYSIS

After the data were collected, it was discovered that the gender data were homogeneous, where all Governors in Indonesia were men in 2014, 2015 and 2016 periods, so this variable was excluded from the analysis of the research. Next, the univariate and multivariate outlier and normality assumptions were checked without including the gender variable and corrected first; if the data did not meet these assumptions. Based on the Z-Score and Mahalanobis Distance tests, no outlier data was found, while the normality test using skewness and kurtosis showed that some data and variables were not normally distributed, because the probability value was less than 0.05. Therefore the data transformation is carried out to improve it by testing all possible data transformation methods for all variables. Table 3 describes the results of the normality test before and after the data transformation.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Data</th>
<th>Best Transformation Method</th>
<th>Transformed Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skewness</td>
<td>Kurtosis</td>
<td>Skewness</td>
</tr>
<tr>
<td>Age</td>
<td>0.222</td>
<td>0.206</td>
<td>none</td>
</tr>
<tr>
<td>Level of education</td>
<td>0.084</td>
<td>0.00</td>
<td>Ln</td>
</tr>
<tr>
<td>Educational Background</td>
<td>0.017</td>
<td>0.785</td>
<td>none</td>
</tr>
</tbody>
</table>
After the data transformation, new tests for normality using skewness and kurtosis showed a significant increase for all transformed variables. Apart from that, the probability value is also not significant, because it is smaller than 0.05, so it can be concluded that all data for this research variable is normally distributed.

The research further tests the multicollinearity assumption. To detect multicollinearity, the research uses variance inflation factor (VIF) and a correlation matrix, so that the correlation between each independent variable is known. VIF testing according to Table 4 shows that there are no multicollinearity problems, because the highest VIF value is the age variable (1.16) which is far below the VIF threshold (10).

Table 4. Result of VIF Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.16</td>
</tr>
<tr>
<td>Level of education</td>
<td>1.12</td>
</tr>
<tr>
<td>Educational Background</td>
<td>1.10</td>
</tr>
<tr>
<td>Tenure</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Multicollinearity testing using a correlation matrix also shows that the independent variables are not correlated with each other, because the highest correlation value is between Tenure and Age (0.322) and does not exceed the threshold value (0.75) as required by [88, 77]. The results of multicollinearity examination using a correlation matrix are presented in table 5.

Table 5. Pearson Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Fraud</th>
<th>Age</th>
<th>LOE</th>
<th>EOB</th>
<th>Tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.273</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levl. of Education</td>
<td>-0.113</td>
<td>-0.236</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educ. Background</td>
<td>0.301</td>
<td>-0.050</td>
<td>0.163</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.116</td>
<td>0.322</td>
<td>0.141</td>
<td>-0.131</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Then, assumption testing was carried out to check heteroscedasticity and autocorrelation. Heteroscedasticity and autocorrelation were tested using Breusch Pagan [79] and Wooldrige [80] respectively. The results show that there is no heteroscedasticity and autocorrelation, because the probability value is not significant for Breusch Pagan (0.971) and Wooldrige (0.076).

After all assumptions in this research have been fulfilled, hypothesis testing using panel data regression can be carried out. Based on the Hausman test and the Langrang multiplier, this study is more suitable for using the common effect (ordinary least square). The findings of the common effect regression analysis to investigate the effect of age, level of education, educational background and tenure on the fraud are
displayed in Table 5. The results show that an R2 of 21.2 percent and F value of 6.56. According to the R2 value, the independent variable in regression model accounts for 21.2% of the variation in fraud.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Predict Sign</th>
<th>Coefficient</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td>0.937</td>
<td>4.22</td>
</tr>
<tr>
<td>Age</td>
<td>-</td>
<td>-0.010</td>
<td>-3.30</td>
</tr>
<tr>
<td>Level of Education</td>
<td>-</td>
<td>-0.091</td>
<td>-2.60</td>
</tr>
<tr>
<td>Educational Background</td>
<td>+</td>
<td>0.997</td>
<td>3.59</td>
</tr>
<tr>
<td>Tenure</td>
<td>+</td>
<td>0.004</td>
<td>0.47</td>
</tr>
<tr>
<td>F-value</td>
<td></td>
<td></td>
<td>6.56</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td></td>
<td>0.212</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td>102</td>
</tr>
</tbody>
</table>

Source: Authors Computation

The coefficients for age and education level in the regression data panel are negative and significant, indicating that age and education level need to be considered in discussing regulatory requirements for Governor candidacy, because they are considered to reduce fraud. Average age and educational background of Governors in Indonesia during the observation period in this study being 57 years and Masters can be used as a basis for consideration of regulatory evaluations for fraud prevention in Indonesia. On the other hand, educational background has a positive coefficient, indicating that this variable does not need to be considered in regulations, because it actually increases fraud. This is more possible because individuals with an educational background in accounting better understand how to commit fraud, so that these individuals have the ability to hide fraud.

V. DISCUSSION

Furthermore, the results of the common effects analysis show that there is a negative relationship between age and fraud. This suggests that older governors are more likely to have an ethical character not to commit fraud. These results are consistent with [15,82,83]. Age provides experience and character development for a person, so that they have more ethical behaviour. The older a person's age is, it will reduce his lifestyle and tend to prefer worship activities. However, this applies to officials who are more than 56 years old according to the ACFE survey, only 1% [60]. Furthermore, someone at a young age, especially at the age of marriage, will have an impact on increasing needs, such as wedding costs and costs after marriage. The age of 36–45 years is also a stage of life with greater needs such as health costs and children's equipment. Furthermore, the age of 46–55 years is also faced with the educational needs and lifestyle of children who are already teenagers and adults.

Based on the level of education, the results of this study indicate that the level of education has a negative relationship with fraud. These results are consistent with [15] who found that fraudulent financial reporting was higher when the CFO had a lower level of education. Education provides the transfer of knowledge and values in life. Therefore, someone who has a doctoral education will have a deeper transfer of knowledge and values, so that it has an impact on his behaviour. The higher the education level of the Governor in Indonesia, the more ethical values he has, so that governors who have higher education, especially doctoral administration, have lower fraud. However, this does not apply to Governors with bachelor's and master's degrees, because the number of fraud perpetrators in undergraduate and master's education is significant [60].
Regarding educational background, the results of this study indicate that there is a positive relationship between educational background and fraud. Educational background in this study is measured by accounting education; therefore, this positive relationship indicates higher fraud when led by a governor with an accounting background. This result is consistent with empirical evidence which reveals that CFOs with accounting education backgrounds have lower levels of conservatism [69]. The accounting education process on average does not develop a sufficiently high moral reasoning capacity [84]. In addition, the accounting education process may not foster sustainable moral growth, so the overall level of moral maturation in the accounting education process is much lower than that of other college graduates and only reaches the level of adult moral maturity in general.

The results of testing the hypothesis indicate that tenure has no bearing on fraud. The findings of [42] which suggested that individuals with longer tenures typically had a higher tolerance for fraudulent behavior, are likewise at odds with the conclusions of this study. The governor with two terms in office is more skilled at fraud, as explained by the theory that tenure has no bearing on fraud. This is possible because governors with longer terms in office are more familiar with and knowledgeable about the internal control framework. As a result, the governor will search for a hole to slip fraud. The governor's two-term limit is justified by his perception of the government as a motivation to embezzle public funds.

Regarding length of service, it reveals an insignificant relationship between length of service and fraud. These results also add to the differences in the results of previous studies. Previous research found a negative relationship between length of service and fraud [20], [72]. The insignificant effect of length of service in this study reveals that fraud does not consider the time the fraud was committed, because it can be done at the beginning, middle or end of the position. In Indonesia, the number of fraud perpetrators at the beginning of their tenure is still significant. This can be caused by high political costs, so the incumbent governor will try to recover the costs incurred more quickly. In addition, he will also collect resources when he will run for re-election in the second term.

Long serving state officials, such as governors in recent times has also been a matter of debate. Law Number 32 of 2012 requires that the length of office of the Governor is 5 (five) years in 1 period and can only be extended for another 5 (five) years. Several parties state that the length of service for state officials such as governors should be extended to 7 or 8 years in 1 (one) period, as in France and other countries. This study reveals that length of service does not have a significant impact on fraud, thus providing information that the fraudulent behaviour of governors in Indonesia does not consider length of office. Furthermore, this research also has implications for state auditors, such as BPK and KPK in evaluating the scope and risk of auditing by considering age, education level, educational background and tenure of governors in Indonesia. Governors can commit fraud at any time, at the beginning or at the end of their tenure, so that the state auditor can use this description in determining the scope and risk of the audit.

The results of this study have implications for policy makers and state auditors to reduce and prevent fraud in local governments in Indonesia by evaluating regulations regarding the requirements for candidates for governor in Indonesia. This study provides information to policy makers about fraudulent practices in Indonesia and contributes to formulating fraud prevention strategies, especially in provinces with high levels of fraud, such as North Sumatra, Riau, Jambi, Bengkulu and Southeast Sulawesi. This study also provides information for policy makers in evaluating regulations regarding the requirements of a person to become a candidate for governor. For instance, Law Number 2 of 2002 concerning Political Parties, Law Number 12 of 2003 about General Elections, and Law Number 10 of 2016 concerning Regional Head Elections all restrict age, education level, and educational background as requirements for a person to become governor.

IV. CONCLUSION

The research is relevant to the current high level of fraud in Indonesia, so studies are needed to find solutions to prevent it. The research aims to examine demographic characteristics consisting of gender, age, education level, educational background and tenure against fraud. The research also shows that age and education level have a negative and significant effect on cheating. Apart from that, the research also reveals that educational background has a positive and significant effect on fraud, while tenure has no effect on fraud. An investigation into the current state of fraud, particularly in local government in Indonesia, has important implications for policy makers, regulators and auditors in Indonesia, in their efforts to reduce and
prevent fraud. Therefore the research can be used as a basis for evaluating regional head election regulations in Indonesia currently in effect, such as Law Number 10 of 2016 concerning Regional Head Elections.

The research only examines Provincial Government in Indonesia in the 2014-2016 period using gender, age, education level, educational background and tenure variables. Future researchers can expand the research by increasing the observation period, sample size by including Regency and City Governments in Indonesia, as well as adding other variables that are considered to contribute significantly to prevent fraud to obtain more relevant and varied data and research results.

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REFERENCES


