

# Original Research Article

## **ANALYSIS OF INFORMATION SYSTEM IMPLEMENTATION, COMPENSATION AND RELIABILITY OF INTERNAL CONTROL TO THE FINANCIAL FRAUD PREVENTION**

### **Abstract**

*This research examines the implementation of information system, compensation, and internal control toward the effect on financial fraud prevention. The study conducted in one of the largest chemical distribution company in Indonesia, with the financial staff of the headquarter as the respondent. Data gathered by using total sampling, and examine by using regression analysis. Result shows that the implementation of information system and compensation can prevent financial fraud, but compensation is not. the significant of the result is, compensation works on preventing financial fraud when the information system and internal control applied. To develop stringer impact, future research expected to have wider scope of respondent and using smaller alpha score to see the different of the research and to add the qualitative perspective.*

Keywords: information system, compensation, internal control, fraud

### **Introduction**

Today, fraud is one of the most common cases in the business world. **Fraud is a form of deception act** that is intentionally carried out which causes losses without being noticed by the injured party and provides benefits for the perpetrators of fraud. Fraud can be in form of injury or loss, false statement, act that cause misinterpretation, material mistake, and an intention to deceive (Romney & Steinbart, 2017) One of the biggest scandals that is widely remembered by the world community is the practice of accounting fraud by the energy company from the United States (US), Enron. Enron Corporation is a US energy company based in Houston, Texas. The company was founded in 1985 and ceased operations in 2007. Unethical practices carried out by this company include displaying incorrect income data and modifying the balance sheet in order to obtain a positive financial performance assessment. In addition, this scandal also led to the dissolution of the accounting firm responsible for Enron's financial statements (Sandaria, 2021)

One of the cases that had attracted the attention of the Indonesian public and is still rolling is the **mega corruption case against two of the biggest financial company in Indonesia**. In 2019 a mega corruption case occurred was involving several people and caused huge losses to the country. The mentioned case was caused by a mismanagement of investment fund and corruption. The following is the chronology of financial company **that running insurance industry is still under investigation due to the systemic impact** (Sembiring, 2019)

This research was conducted on a chemical distributor company that has been operating in Indonesia for more than 20 years. Judging from the company that has been operating for a long time, the influence of the implementation of information systems, compensation, control and prevention of financial fraud will be very dynamic. Thus, the purpose of this study is 1) to find out and understand the extent of the influence of information system implementation on reducing the potential for financial fraud, 2) to find out and understand the extent of the effect of compensation suitability on reducing the potential for financial fraud, 3) to find out and understand to what extent the effect of reliability of internal control on reducing the potential for financial fraud, and 4) to determine the extent of the influence of information system implementation, compensation suitability, and reliability of internal control on reducing the potential for financial fraud simultaneously.

## Literature Review

Fraud means different things to different people in different situations. For example, cheating can be considered cheating. One might say that cheating in the form of intentional cheating (including lying and cheating) is the opposite of truth, justice, fairness, and equality. Although cheating can be intended to force people to act against their own self-interest, it can also be used for someone's defences or survival. Regardless of the reason for the fraud, cheating according to current standards of behaviour is generally considered cruel and guilty, but cheating can be intended for a good cause as well (Singleton & Singleton, 2010)

There are three functions or roles of AIS that are used to achieve the main objectives above. These three functions are very closely related to each other so that they must be seen simultaneously, which consists of providing support to the daily activities of the company, supporting the decision-making process, assisting company managers in fulfilling their responsibilities to external parties. With this information system, the quality of the information system will be understood, relevant, accurate, complete, timely, easily accessible, and verified data (Romney & Steinbart, 2017)

Intentional errors are usually caused by humans operating the system. Common mistakes can be in the form of errors or manipulation of records of operational activities for personal gain. This is classified as a fraud committed by someone with a system to produce wrong information for the company where he works. The Fraud Triangle Theory explains three things that encourage fraud attempts, namely encouragement, opportunity, and rationalization (Hall, 2016). The responsibility for operating an information system provides an opportunity or opportunity for someone to cheat. The application of accounting information systems has a significant effect on accounting fraud (Efrienty, 2020). This proves that the implementation of the entity's accounting information system can significantly influence the risk of material misstatement in the financial statements. Previous research conducted in finance industry stated that the application of an accounting information system had a negative effect on fraud (Muhammad & Ridwan, 2017)

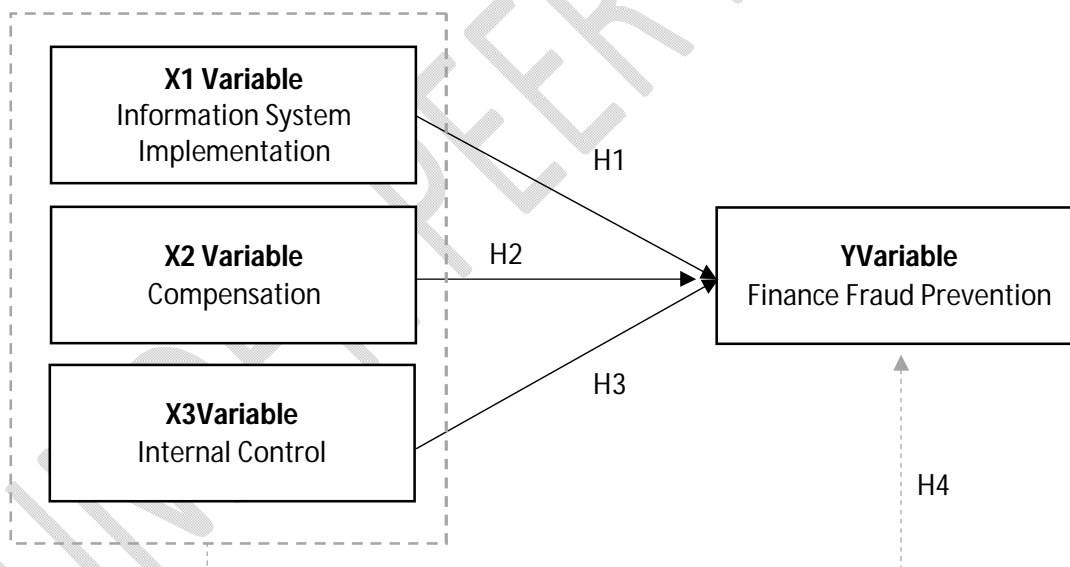
Punishment and obedience orientations give the consequences of good or bad actions regardless of the value of the consequences. An appropriate salaries and benefits must be provided in order to attract employee integrity and performance improvement, even though different compensation scheme has different effect on certain industry (Khursheed & Sheikh 2022; Malik & Shim, 2022). It is important to provide appropriate compensation to agents, not only affecting productivity and quality of work but also reducing the tendency of civil servants to engage in corrupt practices. This theory is in line with previous research (Suarcaya, Prayudi, & Herawati, 2017). Where the results of the study stated that the suitability of compensation has a negative effect on the tendency of fraud. This means that if the compensation provided matches or exceeds employee expectations, the tendency to commit fraud decreases.

In research on the effect of internal control on accounting fraud conducted by Efrienty shows that internal control has a significant effect on accounting fraud (Efrienty, 2020). Thus, this proves that the higher the use of internal control, the less acts of accounting fraud will be. Based on other research conducted by Suarcaya et al and also Ichsan Siregar & Hamdani stated that internal control has a negative effect on accounting fraud (Siregar & Hamdani, 2018; Suarcaya, 2017). In this condition, it means that the more effective and the increasing of internal control, it will affect the decrease of fraudulent behavior.

Even though fraud commonly happen in online transaction that become a trend nowadays, fraud practice in an organization also possible to happen (Amelia, 2016). From the explanation above, forming a hypothesis that can be developed based on each direction of the relationship as follows:

H1) Information system implementation affect the finance fraud prevention. Awareness in using information system can prevent fraud (Yusuf, Nawawi, & Salin, 2020). Otherwise, this research will show support on information system cannot prevent fraud; H2) Compensation affect the finance fraud prevention. Compensation affecting the executive commitment in conduction fraud but cannot guarantee in lowering or increasing the risk (Lux, Raval, & Wingender, 2022); H3) Internal control affect the finance fraud prevention. Different industry, different approach on the use of internal control. some company can implement internal control and fully efficient on preventing fraud. But there are company that resulting partially efficient such as the research examine by Le, Vu, & Nguyen (2021) internal control systems has a negative and significant relationship with law violation, but not with bribes paid to public officials. By contrast, the use of codes of conduct appears to reduce bribe payments but not law violations; H4) Information system implementation, compensation and internal control simultaneously affect finance fraud prevention. In the fourth hypothesis to see how variables can make an impact on fraud prevention simultaneously.

As explained in the hypothesis, the model constructed as four part. first one is the relation of information system implementation to financial fraud prevention, the second one is compensation to financial fraud prevention, the third one is internal control to finance fraud prevention, and the last one is the whole three independent variable to the correlation on financial fraud prevention.



Picture 1. Research Model

## Method

This research sample is finance staff in chemical distribution company in Indonesia. the sample is 30 financial staff, by using total sampling where all the financial staff in the headquarter become the prospective respondent (Sugiyono, 2014) Research analysis of this quantitative research is to pass stage in

regression test. first stage, the data must pass the descriptive analysis, validity test, and reliability test. Second stage, data analysed must be pass the classical test that consist of normality test, multicollinearity test, and heteroskedasticity test. Third stage, regression equation, hypothesis testing by using t-test, hypothesis testing by using f-test, and coefficient determination test. Descriptive statistic defines the demography of respondents, validity test analyzed from the comparison of r-table that must be higher than t-table to be stated as valid, reliability test counted from Cronbach alpha above 0.6. the examination continues to the Normality test by using Saphiro-wilk and Kolomogorov-smirnov test above significant value 0.05, Multicollinearity test by using VIF score below 10, and Heteroskedasticity test by using scatterplot that does not form a shape. **In the end, hypothesis effect is formulated. In the end of the data collection trough distribution, manager also allowed to make general response on the fraud prevention practice by using in depth interview. In depth interview also to make a stand on what kind of company is this research object due to the typical corporate governance in Indonesia are defined as the ethical conduct and the implemented regulation (Dinh Tran Ngoc, 2015).**

## Result and Discussion

**Table 1. List of analysis and their resulting output**

Analysis	Result
Descriptive	Data gathered from 30 respondents and using Likert measurement
Validity test	Data are valid
Reliability test	Data are reliable
Normality test	Data proven normal in both test
Multicollinearity test	Accepted VIF: 1,224 (X1); 1,021 (X2); 1,420 (X3)
Heteroskedasticity test	Scatterplot not form a pattern
Regression equation	$Y = 19,918 + 0,132 \text{ ISI} - 0,032 \text{ C} + 0,175 \text{ FFP}$
T-test	H1 and H3: under the alpha significant score; H2: above
F-test	H4: under the alpha significant score
Coefficient determination test	R square 0.286

From the analysis above, we can see the result of this research as follow:

1. Hypothesis 1, where Information system implementation affect the finance fraud prevention is accepted.
2. Hypothesis 2, where Compensation affect the finance fraud prevention is rejected.
3. Hypothesis 3, where Internal control affect the finance fraud prevention, is accepted.
4. Hypothesis 4, where Information system implementation, compensation and internal control simultaneously affect finance fraud prevention are accepted.

This research grows a discussion that the implementation of information system and internal control can stand alone in preventing fraud. in the other side, the compensation does not have the ability to prevent fraud. the significant of this result is in the fourth hypothesis, where all the dependent variable has significant effect to the preventing fraud. so that, compensation works well when the information system and internal control applied.

In this chemical distribution industry, the compensation improvement or decreasing does not impact the fraud prevention has several possibilities. during the research period, chemical product related to the medicine or vaccine during the pandemic era, do the financial stability of the staff is not ion recess condition. so that the different on the compensation has no impact on the financial fraud prevention. The opportunity to do fraud is exist due to the weakness of the system and control, so once each variable is not

working, the act or willingness to do financial fraud is appearing. The last is information system and internal control of the company alone is sufficient to prevent financial fraud.

## Conclusion

The implementation of information system, compensation and internal control in the chemical distribution company will improve the financial fraud prevention. The implementation of information system and internal control can work well in reducing fraud potential. Compensation itself cannot reduce the fraud potential without the existence of information system and internal control.

This is a red flag for the company, where most of the company in the similar industry try to adjust the compensation as high as possible to prevent fraud, in this particular company will be better on the information system evaluation and strengthening the internal control. Compensation is not a significant factor to prevent financial fraud. For wider perspective and deeper understanding, it is expected to conduct the research qualitatively by using in depth interview and analyse the data by using qualitative research analytic tools.

## References

- Amelia, T. N. (2016). Fraud in Online Transaction: Case of Instagram. *Journal of Advanced Management Science*. Retrieved from <http://www.joams.com/uploadfile/2015/0602/20150602121326620.pdf>
- Dinh Tran Ngoc, H. (2015). THE CRITICAL ANALYSIS OF LIMITED SOUTH ASIAN CORPORATE GOVERNANCE STANDARDS AFTER FINANCIAL CRISIS. *International Journal for Quality Research*, 9(4), 741-746. Retrieved from <https://www.proquest.com/scholarly-journals/critical-analysis-limited-south-asian-corporate/docview/2555373941/se-2>
- Efriyenty, D. (2020). Penerapan Sistem Informasi Akuntansi Dan Pengendalian Internal Terhadap Kecurangan Akuntansi Pada Bank Perkreditan Rakyat Kota Batam. *Jurnal Akuntansi Bareleng*.
- Hall, J. A. (2016). *Accounting Information Systems*. Boston: Cengage Learning.
- Khursheed, A., & Sheikh, N. A. (2022). Determinants of CEO compensation: evidence from Pakistan. *Corporate Governance*.
- Le, N. T. B., Vu, L. T. P., & Nguyen, T. V. (2021). The use of internal control systems and codes of conduct as anti-corruption practices: evidence from Vietnamese firms. *Baltic Journal of Management*, 16(2), 173-189. doi:10.1108/BJM-09-2020-0338
- Lux, D., Raval, V., & Wingender, J. (2022). Compensation structure impact on executive value judgment shift resulting in occurrence of fraud. *Journal of Financial Crime, ahead-of-print*(ahead-of-print). doi:10.1108/JFC-07-2022-0162
- Malik, M., & Shim, E. D. (2022). Empirical examination of the direct and moderating role of corporate social responsibility in top executive compensation. *Pacific Accounting Review*.
- Muhammad, R., & Ridwan. (2017). Pengaruh Kesesuaian Kompensasi, Penerapan Sistem Informasi Akuntansi dan Efektivitas Pengendalian Internal terhadap Kecurangan Akuntansi Studi pada Bank Perkreditan Rakyat (BPR) di Kota Banda Aceh. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*.

- Romney, M. B., & Steinbart, P. J. (2017). Arizona: Pearson Education.
- Sandaria, F. (Producer). (2021). CNBC Market. *CNBC*. Retrieved from <https://www.cnbcindonesia.com/market/20210726191301-17-263827/deretan-skandal-lapkeu-di-pasar-saham-ri-indofarma-hanson>
- Sembiring, L. J. (Producer). (2019). CNBC Markey. *CNBC*. Retrieved from <https://www.cnbcindonesia.com/market/20191228185156-17-126264/bobrok-dari-2004-ini-kronologi-jiwasraya-hingga-default>
- Singleton, T. W., & Singleton, A. J. (2010). *Fraud Auditing and Forensic Accounting*: John Wiley & Sons.
- Siregar, M. I., & Hamdani, M. (2018). Pengaruh Kesesuaian Kompensasi, Keefektifan Sistem Pengendalian Internal, Budaya Organisasi, Dan Kompetensi Terhadap Fraud (Studi pada Satuan Kerja Vertikal Kementerian Keuangan Provinsi Lampung). *Jurnal Ilmiah Ekonomi Global Masa Kini*.
- Suarcaya, I. B. K. (2017). Pengaruh Kesesuaian Kompensasi, Pengendalian Internal , Dan Perilaku Tidak Etis Terhadap Kecenderungan Kecurangan ( Fraud ) ( Studi Kasus Pada Persepsi Pegawai Koperasi Simpan Pinjam (KSP) Se-Kecamatan Buleleng). *Jurnal Akuntansi*.
- Suarcaya, I. B. K., Prayudi, M. A., & Herawati, N. T. (2017). Pengaruh Kesesuaian Kompensasi, Pengendalian Internal , Dan Perilaku Tidak Etis Terhadap Kecenderungan Kecurangan ( Fraud ) ( Studi Kasus Pada Persepsi Pegawai Koperasi Simpan Pinjam (KSP) Se-Kecamatan Buleleng). *Jurnal Akuntansi*.
- Sugiyono. (2014). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Yusuf, Z., Nawawi, A., & Salin, A. S. A. P. (2020). The effectiveness of payroll system in the public sector to prevent fraud. *Journal of Financial Crime, ahead-of-print*(ahead-of-print). doi:10.1108/JFC-08-2017-0075