International Journal of Asian Business and Applied Economics (IJBAE)
Vol.5, No.4, July 2026: 1063-1074

Internal Control and Organizational Culture on Fraud Prevention Efforts (Fraudksp)

Riza Aulia Rachman[1*], Igka Ulupui[2], and Indra Pahala[3]
Postgraduate Program, Master of Accounting, Faculty of Economics and Business, Universitas Negeri Jakarta
Corresponding Author: Riza Aulia Rachman: riza.a.rachman@gmail.com

A R T I C L E I N F O

Keywords: HR Quality, Internal Control, Organizational Culture, Leadership Commitment, Fraud Prevention, PLS-SEM.

Received : 12 May
Revised : 23 June
Accepted: 10 July

A B S T R A C T

This study analyzes the influence of human resource (HR) quality, internal control, and organizational culture on fraud prevention in the Directorate General of Population and Civil Registration (Ditjen Dukcapil), examining the moderating role of leadership commitment. Using PLS-SEM with primary survey data, results show $R^2 = 0.686$ (substantial), indicating the model explains 68.6% of variance in fraud prevention. HR quality (β=0.282) and leadership commitment's moderation of internal control (β=0.269) are significant. The FRAUDKSP concept is proposed as a conceptual contribution integrating eight dimensions of fraud prevention in the public sector.

DOI : https://doi.org/10.55927/ijbae.v5i4.50

ISSN-E: **2963-6124**
https://journalijbae.my.id/index.php/ijbae

INTRODUCTION

Fraud is a serious threat to organizational governance, particularly in government institutions. Reports from the Association of Certified Fraud Examiners consistently identify fraud as one of the greatest threats eroding organizational integrity and sustainability—causing not only financial losses but also damaging reputation and public trust. In Indonesia, reports from Indonesia Corruption Watch note that the government sector remains the largest contributor of corruption cases. Data from the BPK RI Audit Report show recurring findings at the Directorate General of Population and Civil Registration (Ditjen Dukcapil), one of which concerns unresolved asset recording.

Fraud prevention in public organizations is strongly influenced by three main factors: the quality of human resources (HR), the effectiveness of internal control, and organizational culture (Chandra Banjarnahor et al., 2023; Novatiani et al., 2024; Babalola et al., 2022). However, these three factors will not be optimal without strong support from leadership commitment. The concept of tone at the top asserts that leadership commitment acts as a moderating factor that strengthens or weakens the relationship between these variables and the effectiveness of fraud prevention (Tarjo, 2022; Oduro & Cromwell, 2018).

Previous studies generally examine the direct effects of these variables without considering the moderating role of leadership commitment (Saputra et al., 2022; Ilmiana et al., 2025). This study fills that gap by using PLS-SEM and proposes the FRAUDKSP concept as a conceptual novelty.

LITERATURE REVIEW AND HYPOTHESES

Fraud Triangle Theory

Cressey (1953) explains that fraud occurs due to three factors: pressure, opportunity, and rationalization. Pressure can stem from financial or non-financial factors (Albrecht et al., 2019). Opportunity arises from weaknesses in internal control (COSO, 2013). Rationalization is the process of morally justifying fraudulent acts (Dorminey et al., 2012). Wolfe & Hermanson (2004) added capability to form the Fraud Diamond, and Crowe Horwath (2011) added arrogance to form the Fraud Pentagon.

Resource-Based Theory and HR Quality

Resource-Based Theory (Barney, 1991) asserts that high-quality HR is a strategic asset that can become a competitive advantage through the VRIO framework (Valuable, Rare, Inimitable, Organized). Valuable HR has competence, work ethics, and the ability to implement internal control (Ilmiana et al., 2025). Human capital theory adds that investment in training improves HR capability and creates added value (Otoo, 2019). Leadership commitment functions as an organizing capability that ensures HR works synergistically (Saputra et al., 2022).

Transformational Leadership and Leadership Commitment

Bass & Avolio (1994) emphasize that effective leaders can inspire and transform their followers. Ethical leadership (Brown et al., 2005) emphasizes moral values and integrity as a deterrent to deviant behavior. In the context of fraud prevention, leadership commitment works through two mechanisms: as an ethical role model that shapes a culture of integrity (tone at the top), and as a reinforcer of the control system through strategic resource allocation.

Internal Control

COSO (2013) defines internal control through five components: control environment, risk assessment, control activities, information and communication, and monitoring activities. Bonrath & Eulerich (2024) show that strong internal audit is a key pillar in detecting and preventing fraud. Brown et al. (2024) add that information technology strengthens control through real-time monitoring.

Organizational Culture

Schein (2017) defines organizational culture as a pattern of basic assumptions created by a group. A culture that emphasizes integrity and accountability has been shown to contribute to fraud prevention (Babalola et al., 2022). Nugroho et al. (2023) assert that a strong organizational culture reinforces HR competence and the effectiveness of internal control.

Research Hypotheses

Based on the theoretical and empirical review, the hypotheses are formulated as follows:

H1: HR quality has a positive effect on fraud prevention.

H2: Internal control has a positive effect on fraud prevention.

H3: Organizational culture has a positive effect on fraud prevention.

H4: Leadership commitment moderates the effect of HR quality on fraud prevention.

H5: Leadership commitment moderates the effect of internal control on fraud prevention.

H6: Leadership commitment moderates the effect of organizational culture on fraud prevention.

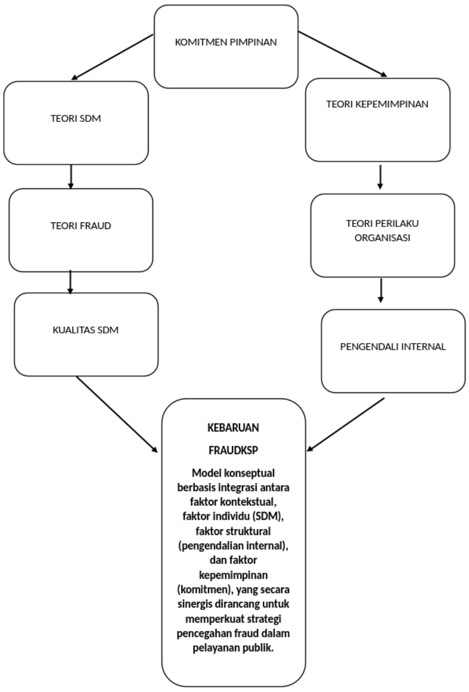

Figure 1. State-of-the-Art Mapping – FRAUDKSP Novelty Model

RESEARCH METHOD

Research Design and Sample

This study uses an explanatory quantitative approach. Primary data were collected through a questionnaire distributed to structural officials, administrative staff, and technical employees of Ditjen Dukcapil. The sampling technique used purposive sampling with the criteria: active employees with at least one year of service who are directly involved in administrative and financial management processes.

Variable Operationalization

All five research variables were measured using a 1–5 Likert scale. Table 1 presents a summary of the variable operationalization.

Variable	Definition	Main Indicators	Scale
HR Quality (X1)	The ability, integrity, and readiness of employees to carry out tasks competently and ethically	Technical competence, Integrity, Self-development, Adaptability (10 items)	Likert 1–5
Internal Control (X2)	Policies, procedures, and oversight	Control environment, Control activities, Information	Likert 1–5

Variable	Definition	Main Indicators	Scale
	mechanisms to ensure report reliability and asset protection	& communication, Monitoring (10 items)	
Organizational Culture (X3)	Values, beliefs, and norms that foster a work environment with integrity, transparency, and accountability	Ethical role modeling, Openness, Discipline enforcement, Accountability (10 items)	Likert 1–5
Leadership Commitment (M)	Leaders' willingness to set an ethical example, support anti-fraud policies, and enforce rules	Anti-corruption role modeling, Resource support, Discipline enforcement, Transparency (10 items)	Likert 1–5
Fraud Prevention (Y)	Systematic efforts to detect, reduce, and eliminate opportunities for fraud	Anti-fraud policy, Training, Whistleblowing, Consistent sanctions (10 items)	Likert 1–5

Table 1. Research Variable Operationalization

PLS-SEM Analysis Method

The analysis uses Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. The stages include: (1) Evaluation of the outer model: convergent validity (outer loading ≥ 0.70; AVE ≥ 0.50), discriminant validity (HTMT < 0.85), and reliability (CR ≥ 0.70); (2) Evaluation of the inner model: R^2, f^2, and path coefficient via bootstrapping with 5,000 subsamples; and (3) Testing the moderation effect using the product indicator approach (Wetzels et al., 2009; Hair et al., 2019).

RESULTS AND DISCUSSION

Measurement Model Evaluation (Outer Model)

Table 2 presents the outer loading results for all indicators. All indicators meet the outer loading ≥ 0.70 requirement, except PI1 (0.739) and PI2 (0.732), which can still be retained because the AVE value of the PI construct = 0.667 > 0.50.

Table 2. Indicator Outer Loading Results

Org. Culture (BO)	Leadership Commitment (KP)	HR Quality (KS)	Fraud Prevention (PF)	Internal Control (PI)
BO1: 0.813	KP1: 0.834	KS1: 0.826	PF1: 0.781	PI1: 0.739
BO2: 0.811	KP2: 0.845	KS2: 0.851	PF2: 0.854	PI2: 0.732
BO3: 0.843	KP3: 0.747	KS3: 0.875	PF3: 0.842	PI3: 0.844
BO4: 0.882	KP4: 0.845	KS4: 0.827	PF4: 0.857	PI4: 0.797
BO5: 0.861	KP5: 0.860	KS5: 0.845	PF5: 0.849	PI5: 0.835
BO6: 0.861	KP6: 0.847	KS6: 0.867	PF6: 0.887	PI6: 0.847
	KP7: 0.856	KS7: 0.862	PF7: 0.888	PI7: 0.891
	KP8: 0.854	KS8: 0.772	PF8: 0.837	PI8: 0.796
	KP9: 0.874	KS9: 0.867	PF9: 0.833	PI9: 0.857
	KP10: 0.824	KS10: 0.880	PF10: 0.837	

Table 3 presents the Fornell-Larcker criterion for discriminant validity. The square root of AVE values on the diagonal (bold) is greater than the inter-construct correlations in the other columns, proving that discriminant validity is met.

Construct	BO	KP	KS	PF	PI
BO	0.846				
KP	0.802	0.839			
KS	0.694	0.744	0.848		
PF	0.708	0.785	0.725	0.847	
PI	0.825	0.820	0.777	0.719	0.817

Table 3. Fornell-Larcker Criterion Results (Discriminant Validity)

Table 4 presents the HTMT ratio. All values are below the 0.90 threshold (liberal criterion) and almost all are below 0.85 (strict criterion), proving discriminant validity.

Table 4. Heterotrait-Monotrait Ratio (HTMT) Results

Construct Pair	HTMT
KP <-> BO	0.856
KS <-> BO	0.739
KS <-> KP	0.775
PF <-> BO	0.754

Construct Pair	HTMT
PF <-> KP	0.820
PF <-> KS	0.752
PI <-> BO	0.888
PI <-> KP	0.866
PI <-> KS	0.821
PI <-> PF	0.754

Table 5 presents the validity and reliability test results. All constructs have Cronbach's Alpha and Composite Reliability (rho_c) above 0.90 (well above the 0.70 threshold), as well as AVE ≥ 0.667, indicating excellent reliability and convergence.

Table 5. Validity and Reliability Test Results

Construct	Cronbach's Alpha	CR (rho_a)	CR (rho_c)	AVE
BO	0.920	0.920	0.938	0.715
KP	0.953	0.954	0.960	0.704
KS	0.956	0.958	0.962	0.719
PF	0.956	0.957	0.962	0.717
PI	0.937	0.942	0.947	0.667

Structural Model Evaluation (Inner Model)

Table 6 shows an R^2 value of 0.686 and an adjusted R^2 of 0.670 for the Fraud Prevention (PF) construct. This value is classified as substantial according to the criteria of Hair et al. (2019), meaning the model can explain 68.6% of the variance in fraud prevention.

Construct	R-Square	R-Square Adjusted
Fraud Prevention (PF)	0.686	0.670

Table 6. R-Square Results (Coefficient of Determination)

Table 7 presents the effect size (f^2). Leadership Commitment (KP) has the largest effect size (0.144), followed by the moderation effects of KP x PI (0.047) and KP x BO (0.058), indicating a meaningful moderation contribution.

Table 7. F-Square Results (Effect Size)

Path	f^2
BO → PF	0.001
KP → PF	0.144

Path	f^2
KP x BO → PF	0.058
KP x KS → PF	0.001
KP x PI → PF	0.047
KS → PF	0.091
PI → PF	0.006

Bootstrapping Results – Hypothesis Testing

Hypothesis testing through bootstrapping (5,000 subsamples) produced path coefficients and t-statistic values. A hypothesis is accepted if the t-statistic > 1.96 ($p < 0.05$).

Table 8. Hypothesis Testing Results (Path Coefficient – Bootstrapping)

Hypothesis / Path	Koef. (β)	t-Statistic	Description	Result
H1: KS → PF	0.282	2.847*	HR quality has a significant positive effect on fraud prevention	Accepted
H2: PI → PF	0.102	0.991	Internal control is not directly significant	Rejected
H3: BO → PF	0.032	0.315	Organizational culture is not directly significant	Rejected
H4: KP x KS → PF	0.018	0.214	KP's moderation of KS → PF is not significant	Rejected
H5: KP x PI → PF	0.269	2.571*	KP's moderation significantly strengthens PI → PF	Accepted
H6: KP x BO → PF	-0.301	2.831*	KP's moderation significantly weakens BO → PF	Accepted**

** Significant at p < 0.05 (t > 1.96); ** a negative moderation effect indicates a substitution effect*

PLS-SEM Model – Research Results

Figure 2 displays the complete PLS-SEM model results with the outer loading of each indicator and the path coefficients among constructs after bootstrapping testing.

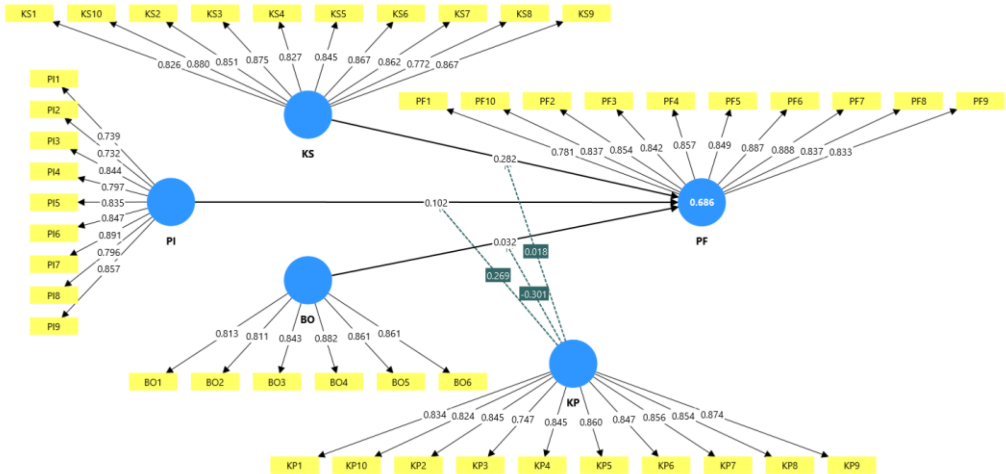

Figure 2. PLS-SEM Model Results (KS=HR Quality, PI=Internal Control, BO=Organizational Culture, KP=Leadership Commitment, PF=Fraud Prevention)

DISCUSSION

Effect of HR Quality (H1 – Accepted)

HR quality is shown to have a significant positive effect on fraud prevention (β=0.282; t=2.847). This finding is consistent with Resource-Based Theory (Barney, 1991): valuable, rare, and high-integrity HR becomes a strategic asset for fraud prevention. This result is in line with Noholo et al. (2021), Wardani et al. (2025), and Sujana et al. (2021), who found a positive effect of HR competence on fraud prevention. Competent employees can recognize patterns of fraud, resist opportunities for fraud despite pressure, and carry out control procedures with discipline (Yufitrianisa et al., 2022).

Internal Control and Organizational Culture Not Directly Significant (H2 & H3 – Rejected)

Internal control (β=0.102; t=0.991) and organizational culture (β=0.032; t=0.315) do not have a significant direct effect on fraud prevention. However, this finding does not mean that these two variables are unimportant; rather, their effect is shown to emerge indirectly through the moderation of leadership commitment (H5 and H6 accepted). This indicates that good internal control and a positive organizational culture require a leadership catalyst to effectively prevent fraud—consistent with the concept of tone at the top (Tarjo, 2022).

Moderating Effect of Leadership Commitment (H5 & H6 – Accepted)

Leadership commitment significantly moderates the effect of internal control on fraud prevention (β=0.269; t=2.571). This means that when leadership commitment is high, the effectiveness of internal control in preventing fraud increases significantly. Committed leaders ensure the implementation of control procedures, support independent internal audits, and allocate resources for monitoring technology (Nadirsyah et al., 2024; Brown et al., 2024).

The negative moderation on the organizational culture fraud prevention relationship (β=-0.301; t=2.831) indicates a substitution effect: when leadership commitment is very high, leaders tend to take a more active role, which reduces reliance on organizational culture as a prevention mechanism. This is an interesting finding showing that leadership commitment and organizational culture are substitutive rather than complementary (Khikmah et al., 2023; Racelis, 2025).

Implications of the FRAUDKSP Model

The FRAUDKSP model (R^2=0.686) integrates eight novel elements into a single conceptual-empirical model. The main finding is that leadership commitment is the most important variable (f^2=0.144) in the fraud prevention system at Ditjen Dukcapil. Without strong leadership commitment, even high-quality HR, good control, and a positive culture will not reach their full potential in preventing fraud. This study confirms that investment in developing high-integrity leadership is the most strategic intervention in public-sector anti-corruption governance.

CONCLUSION

This study produces several important empirical findings: (1) HR quality has a significant positive effect on fraud prevention at Ditjen Dukcapil (H1 accepted); (2) internal control and organizational culture have no direct effect but are moderated by leadership commitment; (3) leadership commitment significantly strengthens the effect of internal control on fraud prevention (H5 accepted); (4) the moderation of leadership commitment is substitutive toward organizational culture (H6 accepted with a negative sign); (5) the FRAUDKSP model explains 68.6% of the variance in fraud prevention—a substantial value that confirms the model's relevance.

RECOMMENDATIONS

For Ditjen Dukcapil: (1) prioritize a high-integrity leadership development program as the most strategic intervention; (2) strengthen HR through anti-corruption competency-based training; (3) implement real-time monitoring technology to strengthen internal control; (4) develop an anti-corruption management certification program for all structural officials. For future research, it is recommended to add information technology and whistleblowing constructs, and to test the FRAUDKSP model in other public institutions to generalize the findings.

REFERENCES

Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2019). Fraud examination (6th ed.). Cengage Learning.

Babalola, M. T., Stouten, J., Euwema, M. C., & Osei-Bonsu, M. (2022). The link between ethical leadership and workplace deviance: The role of organizational culture. Journal of Applied Psychology, 107(3), 511–527. https://doi.org/10.1037/apl0000904

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120. https://doi.org/10.1177/014920639101700108

Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. Sage Publications.

Bonrath, A., & Eulerich, M. (2024). Corporate governance and internal audit effectiveness: Evidence from a large-scale survey. International Journal of Auditing, 28(1), 1–22. https://doi.org/10.1111/ijau.12310

Brown, D., Batra, G., Zafar, H., & Saeed, K. (2024). Reducing fraud in organizations through information security policy compliance: An information security controls perspective. Computers and Security, 144, 1–17. https://doi.org/10.1016/j.cose.2024.103958

Chandra Banjarnahor, A. R., Widodo, W., & Hermaningsih, A. (2023). Human resource quality and fraud prevention in public sector: A systematic review. Asian Journal of Economics, Business and Accounting, 23(21), 1–10. https://doi.org/10.9734/ajeba/2023/v23i211048

Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2013). Internal control—Integrated framework. AICPA.

Cressey, D. R. (1953). Other people's money: A study in the social psychology of embezzlement. Free Press.

(2023). Pengaruh sistem pengendalian internal pemerintah, budaya organisasi, dan anti-fraud awareness terhadap pencegahan fraud. Current: Kajian Akuntansi dan Bisnis Terkini, 4(1), 117–132. https://doi.org/10.31258/current.4.1.117-132

Ilmiana, R., Wijayanti, A., & Mulyani, S. (2025). Human resource quality and fraud prevention in public organizations: A meta-analysis. International Journal of Public Sector Management, 38(2), 145–162.

Kesuma, A. P., & Fachruzzaman, F. (2024). Analysis of internal control and fraud prevention efforts in public sector accounting. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis, 12(1), 1361–1368. https://doi.org/10.37676/ekombis.v12i1.5212

Noholo, S., Amir, A. M., & Yusnita, N. (2021). Influence of human resources competency and prevention of fraud against the quality of government financial statements in Gorontalo Province. International Journal of Innovative Science and Research Technology, 6(4), 779–784.

Novatiani, R. A., Kusumah, R. W. R., Yadiati, W., Abdul Halim Rachmat, R., & Arifian Rachman, A. (2024). Internal auditor competence and internal control: Improving internal audit quality to prevent fraudulent financial statements. Cogent Business and Management, 11(1), 1–17. https://doi.org/10.1080/23311975.2024.2409339

Nugroho, A. D., Sari, R., & Kuntadi, C. (2023). Factors affecting fraud prevention: Organizational culture, human resource competence, and the role of internal auditor. Dinasti International Journal of Education Management and Social Science, 4(4), 627–637. https://doi.org/10.31933/dijemss.v4i4.1807

Ocansey, E. O. N. D., & Ganu, J. (2017). The role of corporate culture in managing occupational fraud. Research Journal of Finance and Accounting, 8(24), 2222–2847.

Oduro, I. M., & Cromwell, A. S. (2018). Internal control and fraud prevention in the Ghanaian local government service. European Journal of Business and Management, 10(14), 46–58.

Ogwiji, J. (2022). Internal control system and fraud prevention of quoted financial services firms in Nigeria: A smart PLS-SEM approach. European Journal of Accounting, Auditing and Finance Research, 10(4), 1–13. https://doi.org/10.37745/ejaafr.2013/vol10no4pp.1-13

Rifai, M. H., & Mardijuwono, A. W. (2020). Relationship between auditor integrity and organizational commitment to fraud prevention. Asian Journal of Accounting Research, 5(2), 315–325. https://doi.org/10.1108/AJAR-02-2020-0011

Sanusi, A. R., Sanusi, I., Yinusa, S., & Abugh, I. (2025). Fraud risk management and organizational resilience: An empirical analysis controlling for organizational culture. World Journal of Advanced Research and Reviews, 26(2), 2446–2458. https://doi.org/10.30574/wjarr.2025.26.2.1512

Saputra, K. A. K., Mu'ah, Jurana, Korompis, C. W. M., & Manurung, D. T. H. (2022). Fraud prevention determinants: A Balinese cultural overview. Australasian Accounting, Business and Finance Journal, 16(3), 167–181. https://doi.org/10.14453/aabfj.v16i3.11

Sarstedt, M., Hair, J. F., Pick, M., Liengaard, B. D., Radomir, L., & Ringle, C. M. (2022). Progress in partial least squares structural equation modeling use in marketing research in the last decade. Psychology and Marketing, 39(5), 1035–1064. https://doi.org/10.1002/mar.21640

Schein, E. H. (2017). Organizational culture and leadership (5th ed.). Wiley.

Sujana, I. K., Sudana, I. M., & Putri, I. G. A. M. A. D. (2021). Human resource quality and fraud prevention in village financial management. Jurnal Akuntansi Multiparadigma, 12(2), 379–395. https://doi.org/10.21776/ub.jamal.2021.12.2.22

Tarjo, T. (2022). The effect of enterprise risk management and top management commitment on fraud prevention: An empirical study. Journal of Accounting and Investment, 23(1), 85–98. https://doi.org/10.18196/jai.v23i1.12053

Wardani, D. K., Chaerunisak, U. H., Langu, H. R. L. K. R., & Surjo, M. Z. (2025). The influence of human resource competence on fraud prevention with internal control system as a moderating variable in Yogyakarta City Government. In Proceedings of ICOSEND 2024. Atlantis Press SARL. https://doi.org/10.2991/978-2-38476-366-5_14

Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. Journal of Management, 32(6), 951–990. https://doi.org/10.1177/0149206306294258

Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171–180. https://doi.org/10.1002/smj.4250050207

Yufitrianisa, Wahyuningsih, E., Apriliani, M., Shaddiq, S., Zulkarnain, I., & Anggraini, N. (2022). The influence of human resource and marketing competence, morality, whistleblowing, and internal control system on the prevention of fraud in village financial management in Karimun Regency. International Journal of Latest Technology in Engineering, Management & Applied Science, 11(12), 1–7. https://doi.org/10.51583/ijltemas.2022.111201