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Fraud Disclosure Tendency in Banking System: Impact of Psychological Contract Breach and Organizational Factors

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Abstract

This study addresses the impact of psychological contract breaches and organizational factors on fraud disclosure in the banking system. The statistical population includes all the employees and internal auditors in the banks listed on the stock exchange in 2022. The data is collected using a questionnaire. Structural equation modeling and Smart PLS v.3 Software propose and test eight hypotheses. Results showed a significant negative relationship between interpersonal effect, employee transactional relationship, financial system instability, deficient organizational changes, and unethical organizational morality with fraud disclosure. However, results showed no significant relationship between past disclosure responses and fraud disclosure tendency. The mentioned organizational factors affect fraud disclosure via the mediating role of psychological contracts. The last hypothesis showed that employees tend to disclose fraud to their supervisors rather than to the fraudster and internal auditors. This article is an innovative study because it is the first research addressing psychological contracts' effects in the accounting and auditing field. Our results and findings by investigating the negative impact of psychological contract breach on the tendency to disclose fraud contribute to audit literature, fraud diamond, and fraud disclosure. Psychological contract breach might affect the "opportunity" element in the fraud diamond by not whistleblowing fraud. Management relies on their employees as an internal control against fraud.

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1. Introduction

Studies show that fraud has had an unprecedented increase, yet fraud disclosure has also increased, according to Compliance Hotline Benchmarking and corporate governance reports (John et al., 2023). Iranian banks and institutions have become the target of embezzlement in recent years (Ayani, 2021). In attempting to provide a model for detecting fraud risk factors, Raeisi Nafchi and Dastgir (2019) found that fraud risk factors relevant to financial stability, internal controls, and mandatory standards increase fraud. Therefore, enhancing and improving these factors facilitates fraud detection. High financial transactions and contracts make banks and financial institutions – cash-oriented industries- prone to embezzlement and fraud. However, fraud disclosure by limiting the time for fraud reduces the following costs: Ozili (2016) found that fraud whistleblowers (i.e., those who disclose and reveal fraud) might practice a trace of conservatism in their disclosures based on the cost-benefit analysis. The extent and manner of disclosure are affected by the organization's policy, the country's political economy, corporate ownership, and other institutional factors.

Organizations rely on their staff to detect and disclose fraud. Fraud detected by employees saves time and cost, but if it is found accidentally or by external auditors, fraudsters have enough time, and the costs will be worse (Association of Certified Fraud Examiners, (ACFE, 2014). Nevertheless, findings concerned with the drivers of employees' disclosure or non-disclosure practices remain scant. In investigating fraud non-disclosure, MacGregor and Stuebs (2014) concluded that whistleblowers' rationalization to remain silent about fraud is linked to social factors and their personality traits, including awareness and ethical qualifications. Brink et al. (2015) found that when there is strong evidence of fraud and more peers are aware of it, the probability of fraud disclosure is higher than when fewer coworkers are aware. However, these results do not apply to all situations.

Numerous increasing or decreasing factors, including psychological contracts, affect employee incentives. The psychological contract is an unwritten and implied contract between an individual and an organization. Such contracts are the reciprocal obligations, perceptions, and beliefs that determine the given and received expectations between employee and employer (Liang, 2023). The psychological contract is breached if employers do not fulfill their obligations. Unfulfilled obligations initiate anger, irritation, betrayal, disappointment, depression, anxiety, and hatred. Such emotions affect job satisfaction, organizational commitment, security, motivation, and internal and external performance. Consequently, the employees' undermined motivation for work eventuates in increased work absence and strengthened feelings to abandon the job (Karani et al., 2022).

Psychological contracts are breached due to various individual and organizational reasons. The resulting fraud causes damage and harm to the organization (Rousseau, 2001). According to social exchange theory, the reason for the link between psychological contracts, job satisfaction, and organizational commitment to misconduct is the retaliation principle (Kaplan et al., 2011). Therefore, answering what triggers employees to blow the whistle or remain silent in disclosing and revealing fraud is worth answering.

Psychological contract breach gives rise to opportunistic misbehaviors, including fraud. This situation is exacerbated by employees' silence and reluctance concerning fraud and might affect the "opportunity" element in the fraud diamond. Employees play an integral role in organizations against fraud by detecting and disclosing fraud. Therefore, this study concentrates on reasons for fraud non-disclosure despite the growing number of fraud cases. Moreover, this paper attempts to find what initiates employees' tendency to blow the whistle or remain silent against fraud. To the best of our knowledge, this is the first study in accounting and auditing to address the role of psychological contracts in finding individuals' tendency to disclose fraud and model their disclosure. Our results develop the fraud literature and studies of psychological contract breaches by bringing them into the accounting sphere. These findings also contribute to the literature on accounting, fraud diamond, and fraud disclosure by showing the negative impact of psychological contract breach on the tendency to disclose fraud. The study is structured by providing the theoretical and experimental foundation, explaining the methodology, and finally illustrating the results and findings.

2. Theoretical and Experimental Foundation

Fraud in the banking system is inevitable, and its indirect costs and damages far outweigh its direct harms. Factors that give rise to fraud include organizational and transactional complexity, changed business operations, increased transactions, and weak internal controls. The organizational and transactional complexity broadens the misconducted opportunity and fraud (Chan, 1999). John et al. (2023) found that the relationship between fraud and market index is negative, but the relationship between fraud and transacted stock value is positive. In investigating the increased fraud due to technological advancements, Ayani (2021) states that altered financial statements pose issues to the public and government. The higher the number of credit card transactions, the higher the fraud. Such frauds have economic and mental effects on organizations and clients. In analyzing the relationship between the personality attributes of fraudsters, Johnson et al. (2017) found that inactive personality traits commit fraud following managerial pressures. Still, proactive personalities do not follow managers' pressure to commit fraud.

According to Fraud Diamond, fraud happens when four factors exist: incentive, opportunity, rationalization, and capability. Opportunity paves the way for fraud, rationalization, and incentive to attract individuals; capable individuals take advantage of the observed opportunity (Wolfe and Hermanson, 2004). All fraud aspects except for opportunity have been closely analyzed. Opportunities arise from perceived weaknesses in the organization's controls, poor fraud detection, and low arrest situations (Dorminey et al., 2012). Therefore, an effective internal system plays a central role in detecting fraud and its timely prevention and cost minimization. By encouraging accountants to perform within the professional code of conduct, such a system enhances organizations' well-being, performance, satisfaction, commitment, and loyalty (Young et al., 2021). Namazi and Ebrahim (2015) found that organizational justice theory can affect the implementation of efficient fraud whistleblowing mechanisms. Although employees do not permanently commit fraud, they detect and disclose it (CFE, 2014). Employees' role as an internal control against fraud should not be overlooked, especially when staff have reasonable evidence and information regarding the fraud. Taheri Nia et al. (2022) found that internal controls are essential in preventing increased financial reporting risks by reducing the opportunities for fraudulent behaviors. Liang (2023) found that concentrated monitoring is positively linked with work satisfaction or the financial flow intention in a contract. This finding shows a direct relationship between enhancing concentration and work satisfaction. However, the psychological contract has a mediating effect on this relationship. Karani et al. (2022) state that implementing psychological contracts affects psychological outcomes: organizational commitment and job satisfaction. Peer support and participation have a positive mediating role in the relationship between psychological contracts and work results. Based on retaliation expectation, the psychological contract significantly overlaps with social exchange theory in that individual's social interactions rely on the other party's behavior. The psychological contract refers to unwritten reciprocal duties between employee and employer to achieve positive attitudinal and behavioral results. Minimizing the outcomes of violating these contracts requires paying close attention to their contents. Young et al. (2021) stated that psychological contracts show informal or non-contracting expectations. Understanding such contracts helps explain the expectations that were not met, including higher budget deficits and inefficient audit quality. Hammouri et al. (2022) stated that implementing psychological contracts affects efficiency and job satisfaction. Social exchange theory states that both parties provide each other with significant advantages. Therefore, workplace relationship is a type of loyalty in exchange for organization and work's material incentives. Gallani et al. (2019) state that psychological contract breach mediates the relationship between budget type and false budget reporting. Sharma and Garg (2017) showed that employees can decide which organization to work for using psychological contracts. When these contracts are not violated, staff have a sense of belonging to the organization, and experienced employees' resignations from jobs will be reduced. According to Shahriari Nezhad and Ghaffari (2021), there is a significant relationship between succession planning, psychological contract, and leadership style. Managers can improve employees' mental health by knowing the importance of leadership style. Hemat Panah et al. (2017) reported a positive relationship between psychological contracts (transitional and relational) and citizenship performance. Foroghi et al. (2022) stated that fraud deliberately manipulates financial statements to mislead users. They showed that social responsibility reports negatively affect financial reporting. Based on this interaction, individuals are obliged and committed to helping those who have helped them. Such behavior is considered loyalty, in which the reciprocal regulations oblige staff to compensate for the past management's good behavior and the organization's support (Eisenberger, 2001). Golparvar et al. (2011) report a significant relationship between psychological contract breach, job satisfaction, and organizational commitment with deviated and unethical behaviors. Mortazavi et al. (2012) found 11 commitments from the university to its faculty members (academic staff) and seven from faculty members to the university. Following the foregone topics regarding psychological contract breach and organizational factors affecting an individual's tendency to disclose fraud in the banking system, the following hypotheses are proposed.

2.1 Research hypotheses

1. ***Interpersonal effect****:* If the employees' interpersonal relationship with the fraudster is positive, employees tend to disclose the fraud less.
2. ***Transactional relationship***: When employees owe (have a transactional relationship with them) to the fraudster, they tend to disclose the fraud less.
3. ***Financial instability****:* Employees tend to disclose fraud less if the organization is financially unstable.
4. ***Deficient organizational change***: If the organizational change is deficient, employees have less tendency to disclose fraud.
5. ***Organizational morality***: If the organizational morality is poor, employees have less tendency to disclose fraud.
6. ***Past fraud disclosure responses***: if managers respond poorly to past frauds, employees tend to disclose fraud less.
7. ***Organizational factors:*** Organizational factors affect fraud via psychological contract (mediating role).
8. ***Choosing the authorized recipient of the disclosed fraud***: Employees tend to disclose fraud to supervisors rather than internal auditors.

2.2 Conceptual research model

Figure (1) depicts the study's conceptual model based on the theoretical foundation, variables, and hypotheses. The left side demonstrates independent variables that developed the first 6 hypotheses. The right side shows the dependent variable of employees' tendency to disclose fraud. Finally, the psychological contract (the mediating variable and underlying proposition for H7) is shown in the middle of the figure.

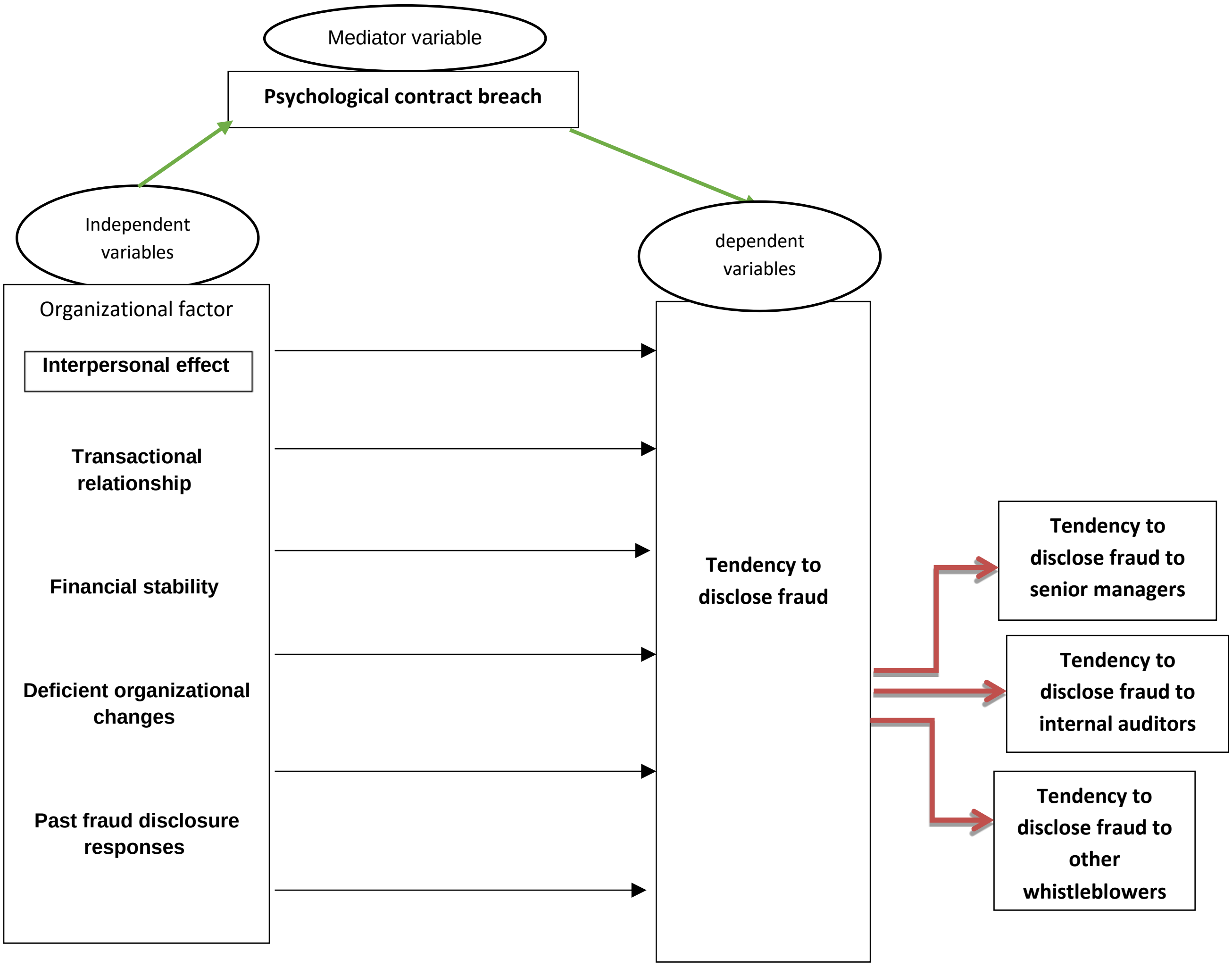

Figure 1. Study's conceptual model

3. Research Methodology

This paper is applied research with a survey methodology that uses questionnaires as its instrument to measure data. Then, the hypotheses were tested by structural equation modeling (Smart PLS v.3 Software). Cochran's formula was used to select the sample. Cochran's formula allows the researcher to choose the sample size according to the desired accuracy, the desired level of confidence, and the ratio of the estimated average of the characteristics of the desired trait in society. The data were collected via a questionnaire. By modelling the structural equations, this study investigates the impact of psychological contract breaches and organizational factors on the tendency to disclose fraud. The questionnaire has demographic and biographic data. The demographic information includes age, gender, work experience, education and organization rank. The statistical population includes employees and internal auditors in the banks listed on the stock exchange in 2022. 520 Questionnaires were distributed, and 450 questionnaires were answered. Consistent with Scheetz's (2016) standard questionnaire, this study uses three questionnaires that each address and measure two variables. The first questionnaire, with 20 questions, investigated the employees' interpersonal relationships, transactional relationships, staff tendency to disclose fraud to the relevant authority, and the mediating roles. The second questionnaire, with 20 questions, addressed financial instability, deficient organizational changes, staff tendency to disclose fraud to the relevant authority, and mediating roles. The third questionnaire analyzed organizational morality, past fraud disclosure responses, the tendency to disclose fraud to the relevant authority, and mediating roles. The variables assessed in the questionnaire are ranked as follows: Tendency to disclose fraud is the dependent variable, and the likelihood of disclosing the fraud to senior management, internal auditors, and fraud whistleblowers is also analyzed. Independent variables are interpersonal effects, transactional relationships, financial stability, deficient organizational changes, organizational morality, and past fraud disclosure responses. The mediator variable creates an indirect link between two variables by channeling the impact of an independent variable on the dependent variable. The mediator variable in this study is the “psychological contract breach.” The study’s variables are analyzed as follows:

3.1 Variables measurement

3.1.1 Independent variables

The interpersonal effect*:* when the interpersonal relationship between employees and the fraudster is positive, employees are less incentivized to disclose fraud (questions: B-1, B2, B3, B4, B5 and D-1, D3, and E-1) (questionnaire 1).

The transactional relationship: when employees owe to the fraudster (they have a transactional relationship with each other), employees are less incentivized to disclose fraud (questions: B-1, B-2, B-3, B-4, B-5, and D-2, D-4, and E-2) (questionnaire 1).

Organization’s financial stability: when an organization is financially unstable, employees are less incentivized to disclose fraud (questions: B-1, B-2, B-3, B-4, B-5, D-1, and E-1) (questionnaire 2).

Deficient organizational changes*:* when organizational changes are deficient, employees are less incentivized to disclose fraud (questions: B-1, B-2, B-3, B-4, B-5, D-2, and E-3) (questionnaire 2).

Organizational morality*:* when organizational morale is poor, employees are less incentivized to disclose fraud (questions: B-1, B-2, B-3, B-4, B-5, D-1, D-2, and E-1) (questionnaire 3).

Past fraud disclosure responses: when the managerial response to past disclosed fraud is poor, employees are less incentivized to disclose fraud (questions: B-1, B-2, B-3, B-4, B-5, D-3, and E-3) (questionnaire 3).

3.1.2 Dependent variables

Choosing recipient of the fraud disclosure*:* employees tend to disclose fraud to their supervisors rather than to internal auditors and fraud whistleblowers (questionnaires: 1, 2, and 3).

3.1.3 Mediator variable

Psychological contract*:* organizational factors affect fraud disclosure via psychological contracts (questions: B-1, B-2, B-3, B-4, B-5, D-2, and D-3) (questionnaires: 1, 2, and 3).

Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test are used to analyze sampling adequacy. KMO measure, or sampling adequacy, compares the correlation values with minor values. If values of this statistic are at least 50%, correlations are appropriate for factor analysis. Bartlett's statistics must be significant for factor analysis to be appropriate. Results are shown in Table 1.

Table 1. KMO and Bartlett test

KMO measure of sampling adequacy	**0.810**	
Bartlett’s test	**….**	925.4
	p-value	0.000

Since the KMO measure is 0.810, the sample is adequate.

4. Findings

4.1 Checking the normality of the data

The Kolmogorov-Smirnov test is used to test the normality of the variables. The null hypothesis in this test is the normality of the variables. The null hypothesis is accepted if the significance level exceeds 0.05 and the variable is normal. The results of this test for the variables are presented in the table below.

Table 2. Checking the normality of the data

Variable	Kolmogorov-Smirnov -Z	P-value
Psychological contract breach	1.768	0.004
Interpersonal effect	2.165	0.000
Past fraud disclosure responses	2.348	0.000
Deficient organizational changes	1.381	0.044
Tendency to disclose fraud	1.967	0.001
Transactional relationship	2.546	0.000
Organizational morality	1.812	0.003
Financial stability	2.216	0.000

Table (2) shows that none of the variables have a normal distribution. However, PLS Software can be used to analyze the data.

4.2. Descriptive statistics (demographic information)

Table 3. Descriptive statistics for the statistical sample

Description	Relevant factors	Frequency	Frequency percentage
Gender	Male	335	82.720
	Female	70	17.280
Age	20-30 years	28	6.910
	31-40 years	311	76.790
	41-50 years	66	16.300
Education	BA	207	51.110
	MA	194	47.900
	Ph. D	4	0.990
	Accounting	279	68.890
	Management	126	31.110
Work experience	Less than 5 years	58	14.320
	5 to 15 years	292	72.100
	16 to 20 years	55	13.580
Job position	Expert	364	85.430
	Manager	59	14.570
Organization type	Private	270	66.670
	Public	135	33.330
Total		405	100

Table (3) shows demographic information. 82.72% of respondents were male and 17.28% were female. Most respondents (76.79%) were aged from 31 to 40. Most respondents (51.11%) had bachelor's degrees. 68.89% of respondents majored in accounting. 72.10% of respondents had work experience from 5 to 15 years, 85/89% were experts, and 14.57% were managers. 66.67% of respondents worked in the private sector, while 33.33% worked in government organizations.

4.3 Construct reliability

Partial Least Square (PLS) calculates the reliability of each latent variable in the model rather than calculating the reliability of the whole model. Composite Reliability and Cronbach’s alpha are used to find the reliability of the latent variables. Alpha Cronbach gives the same value to all the variables, but Composite Reliability specifies different values (relevant to variables’ factor loading) to variables.

Table 4. Variables’ reliability

Variable	Cronbach's alpha	Composite reliability	Raykov's Rho (reliability rho)
Psychological contract breach	0.779	0.858	0.791
Interpersonal effect	0.758	0.860	0.793
Past fraud disclosure responses	0.745	0.855	0.746
Deficient organizational changes	0.780	0.900	0.793
Tendency to disclose fraud	0.896	0.928	0.897
Transactional relationship	0.819	0.882	0.865
Organizational morality	0.713	0.820	0.741
Financial stability	0.831	0.890	0.841

According to Table (4), since the variables’ reliability is higher than 0/70, they have an acceptable reliability.

4.4 Model’s construct validity

4.4.1 Convergent validity

Validity determines to what extent the measuring instrument measures the mentioned feature. The average Variance Extracted (AVE) measures the variables’ validity. AVE shows the correlation between each construct and its indexes. The higher the correlation, the greater the model’s fit. Fornell and Larcker (1981) introduced a critical value of 0.5. Since AVE for all variables in Table (5) is higher than 0.5, the convergent validity for all variables is adequate.

Table 5. AVE for the latent variables

Variable	AVE value
Psychological contract breach	0.603
Interpersonal effect	0.673
Past fraud disclosure responses	0.663
Deficient organizational changes	0.819
Tendency to disclose fraud	0.763
Transactional relationship	0.657
Organizational morality	0.534
Financial stability	0.671

4.4.2 Divergent validity

Divergent validity shows the relation of the construct with its indexes compared to the relation of that construct with other constructs. Acceptable divergent validity indicates that a construct interacts more with its indexes than others. According to Fornell and Larcker (1981), if the AVE for each construct is higher than the variance common between that construct and other constructs (square of the correlation coefficient between constructs), then divergent validity is acceptable. In PLS, this is analyzed by a matrix that shows the correlation coefficient between constructs and the AVE square roots for each construct. If the elements in the main diagonal are higher than values in minor diagonals, then divergent validity is acceptable.

Table 6. Divergent validity matrix using Fornell and Larcker statistic

	Psychological contract breach	Interpersonal effect	Past fraud disclosure responses	Deficient organizational changes	Tendency to disclose fraud	Transactional relationship	Organizational morality	Financial stability
Psychological contract breach	0.776							
Interpersonal effect	0.500	0.820						
Past fraud disclosure responses	0.615	0.580	0.814					
Deficient organizational changes	0.492	0.666	0.480	0.905				
Tendency to disclose fraud	0.619	0.699	0.650	0.662	0.873			
Transactional relationship	0.535	0.723	0.649	0.656	0.691	0.811		
Organizational morality	0.640	0.736	0.701	0.584	0.798	0.671	0.731	
Financial stability	0.575	0.718	0.662	0.553	0.688	0.665	0.727	0.819

4.5 Structural tests for the main model

4.5.1 Conceptual model’s fit

Before testing the research hypotheses, factor analysis analyzes the measurement of the variables via a questionnaire. Figure (2) shows the research model using factor loading coefficients and t-statistics after eliminating questions with factor loading lower than 0.4.

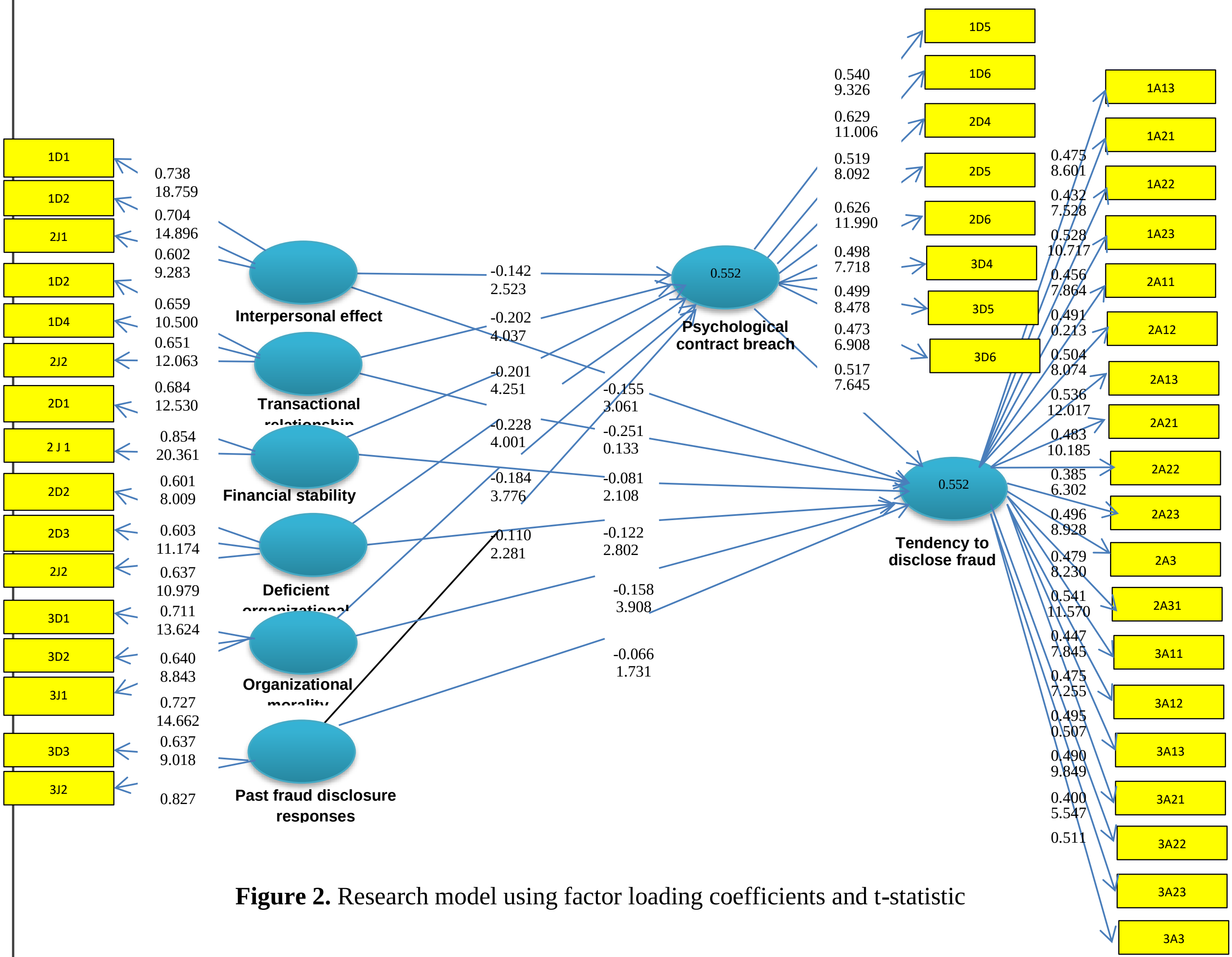

Figure 2. Research model using factor loading coefficients and t-statistic

Table 7. Path coefficients, t-statistic, and p-value using factor loading coefficients and t-statistic

Path	Coefficient	t-statistic	p-value
Psychological contract breach > tendency to disclose fraud	-0.277	-5.030	0.000
Interpersonal effect > psychological contract breach	-0.142	2.523	0.012
Interpersonal effect > tendency to disclose fraud	-0.155	3.961	0.000
Past fraud disclosure responses> psychological contract breach	-0.110	2.281	0.023
Past fraud disclosure responses> tendency to disclose fraud	-0.066	1.731	0.084
Deficient organizational changes> psychological contract breach	-0.228	4.001	0.000
Deficient organizational changes> tendency to disclose fraud	-0.132	2.802	0.005
Transactional relationship> psychological contract breach	-0.202	4.037	0.000
Transactional relationship> tendency to disclose fraud	-0.251	6.133	0.000
Organizational morality> psychological contract breach	-0.184	3.776	0.000
Organizational morality> tendency to disclose fraud	-0.158	3.908	0.000
Financial stability> psychological contract breach	-0.201	4.251	0.000
Financial stability> tendency to disclose fraud	-0.081	2.108	0.036

4.6 Hypotheses examination

4.6.1 First hypothesis

Interpersonal effect: when the interpersonal relationship between employees and fraudsters is positive, employees have less tendency to disclose fraud.

According to Table (7), since the p-value for the interpersonal effect on fraud whistleblowing is less than 0.05 ($p\leq.0.05$), presuming that other factors are fixed, it is inferred that the interpersonal impact on fraud disclosure is significant. Based on the negative correlation coefficient, the interpersonal effect on fraud disclosure is negative. When the relationship between employees and fraudsters is positive, employees have less tendency to disclose fraud. Therefore, the first hypothesis is confirmed.

4.6.2 Second hypothesis

The transactional relationship: when employees owe to the fraudster (they have a transactional relationship with each other), employees are less incentivized to disclose fraud

According to Table (7), since the p-value for the transactional impact on fraud whistleblowing is less than 0.05 ($p\leq0.05$), presuming that other factors are fixed, it is inferred that the transactional impact on fraud disclosure is significant. Based on the negative correlation coefficient, the transactional effect on fraud disclosure is negative. If employees owe the fraudster and are indebted to them (they have a transactional relationship with each other), employees' tendency to disclose fraud is poor. Therefore, the second hypothesis is confirmed.

4.6.3 Third hypothesis

Financial instability*:* when an organization is financially unstable, employees are less incentivized to disclose fraud.

According to Table (7), since the p-value for the impact of financial instability on fraud whistleblowing is less than 0.05 ($p\leq0.05$), presuming that other factors are fixed, it is inferred that the transactional impact on fraud disclosure is significant. Based on the negative correlation coefficient, the instability effect on fraud disclosure is negative. When the organization is financially unstable, employees have a poor tendency to disclose fraud. Therefore, the third hypothesis is confirmed.

4.6.4 Fourth hypothesis

Deficient organizational changes: when organizational changes are deficient, employees are less incentivized to disclose fraud.

According to Table (7), since the p-value for the impact of deficient organizational changes on fraud whistleblowing is less than 0.05 ($p\leq0.05$), presuming that other factors are fixed, it is inferred that the effect of deficient organizational changes on fraud disclosure is significant. Based on the negative correlation coefficient, the impact of deficient changes on fraud disclosure is negative. When the organization has unsuitable changes, employees’ tendency to disclose fraud is poor. Therefore, the fourth hypothesis is confirmed.

4.6.5 Fifth hypothesis

Organizational morality: when organizational morale is poor, employees are less incentivized to disclose fraud.

According to Table (7), since the p-value for the impact of organizational morality on fraud whistleblowing is less than 0.05 ($p\leq0.05$), presuming that other factors are fixed, it is inferred that the effect of organizational morality on fraud disclosure is significant. Based on the negative correlation coefficient, the impact of an organization's morale on fraud disclosure is negative. When an organization's morale is poor, employees have a weaker tendency to disclose fraud. Therefore, the fifth hypothesis is confirmed.

4.6.6 Sixth hypothesis

Past fraud disclosure responses: when the managerial response to past disclosed fraud is poor, employees have a weak tendency to disclose fraud.

According to Table (7), since the p-value for the impact of past fraud disclosures on fraud whistleblowing is more than 0.05 ($p \leq 0.05$), presuming that other factors are fixed, it is inferred that the effect of past fraud disclosure on fraud whistleblowing is insignificant. Therefore, the sixth hypothesis is rejected.

4.6.7 Seventh hypothesis

Organizational factors: Organizational factors affect fraud whistleblowing through psychological contracts.

The impact of the independent variable on the mediator variable and the effect of the mediator variable on the dependent variable must be significant for H7 to be confirmed and the mediating role of the psychological contract to be approved. The H7 results for each independent variable are presented.

According to Table (7), since the p-value for both paths of interpersonal effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0.05 ($p \leq 0.05$), the interpersonal relationship affects fraud disclosure through psychological contract.

According to Table (7), since the p-value for both paths of transactional effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0.05 ($p \leq 0.05$), the transactional relationship affects fraud disclosure through psychological contract.

According to Table (7), since the p-value for both paths of financial stability effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0/05 ($p \leq 0.05$), the financial stability affects fraud disclosure through psychological contract.

According to Table (7), since the p-value for both paths of deficient organizational change effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0.05 ($p \leq 0.05$), the deficient change affects fraud disclosure through psychological contract.

According to Table (7), since the p-value for both paths of organizational morality effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0.05 ($p \leq 0.05$), the organizational morality affects fraud disclosure through psychological contract.

According to Table (7), since the p-value for both paths of past disclosure response effect on psychological contract breach and the psychological contract breach impact on fraud disclosure is less than 0.05 ($p \leq 0.05$), the past disclosure responses affect fraud disclosure through psychological contract.

Since all the path coefficients for the impact of the independent variable on the mediator variable and the effect of the mediator variable on the dependent variable were significant, the H7 is confirmed. Therefore, organizational factors affect fraud disclosure through psychological contracts.

4.6.8 Eighth hypothesis

Choosing recipient of the fraud disclosure: employees tend to disclose fraud to their supervisors rather than to internal auditors and fraud whistleblowers.

Analysis of variance (ANOVA) test is used to test H8, which compares the extent of disclosed fraud to supervisors, fraud whistleblowers, and internal auditors. The null hypothesis in this test assumes no difference between the named groups. Results are presented in Table (8).

Table 8. H8 results, tendency to disclose fraud and coefficient of determination

F statistic	P-value
18.36	0.000
Groups	Percentage
Supervisors	75.400
Fraud whistleblowers	13.600
Internal auditors	7.700
Variable	R2
Psychological contract breach	0.552
Tendency to disclose fraud	0.685

The null hypothesis is rejected since the significance level and the f statistic shown in Table (8) is zero and lower than α of 0.05. The rejected null hypothesis indicates a significant difference between the tendency to disclose fraud to supervisors, whistleblowers, and internal auditors. Therefore, since employees have a stronger tendency to disclose fraud to supervisors rather than to whistleblowers and internal auditors, H8 is confirmed.

R^2 is a criterion that links the measuring and structural parts of structural equation modeling and shows the impact of an extrinsic variable on an intrinsic variable. According to Table (8), the R^2 value for the intrinsic variables is strong.

4.7 F2 Effect size

The F2 value introduced by Cohen (1988) determines the intensity of the relationship between models' construct. F2 values of 0.02, 0.15, and 0.035 indicate small, medium, and large intensity effects. As demonstrated in Table (8), the intensity effect for past fraud responses, deficient organizational changes, and financial system stability is small, but such effect for other variables is medium.

Table 9. Effect size value (f2)

Variable	Tendency to disclose fraud
Psychological contract breach	0.109
Interpersonal effect	0.046
Past fraud disclosure responses	0.011
Deficient organizational changes	0.035
Transactional relationship	0.125
Organizational morality	0.053
Tendency to disclose fraud	0.015

4.8 Goodness of Fit Index

The overall model consists of the two measurement and structural models, which, if its fit is approved, then the fit analysis in a model is completed. The goodness of fit (GOF) measures the overall model's fit.

$$\text{GOF} = \sqrt{\overline{Communalities}.\overline{R^2}}$$

Where:

Communalities: the common values between each construct

R^2: the mean of r^2 values of the intrinsic model.

Wetzels et al. (2009) assigned three values of 0.01, 0.25, and 0.36 as small, medium, and large to

GOF. Since the GOF value in this study is 0.486, the model's fit is strong.

Square Root Mean Residual (SRMR), Root Mean Squared (RMS) Theta, and Normed Fit Index (NFI) are used to assess the model's overall fit. SRMR, RMS Theta, and NFI are used to measure the model's overall fit. Values lower than 0.08 or 0.1 for SRMR, values lower than 0.12 for RMS Theta, and values higher than 0.7 for NFI indicate that the model fits well. The results of these three indexes are shown in Table (10).

Table 10. SRMR, RMS Theta, NFI, and GOF measures

Measures	Obtained value	Acceptance criteria	Results
SRMR	0.060	Lower than 0.1 or 0.08	Acceptable
RMS Theta	0.119	Lower than 0.12	Acceptable
NFI	0.834	Higher than 0.7	Acceptable
Other statistical measures	value	GOF value	Results
R2	0.619		
Communality mean	0.382	0.486	Adequate GOF

According to Table (10), all the measurement indexes are acceptable and show that the model fits well.

5. Conclusion

Fraud in the banking system is a pervasive misconduct due to organizational complexity and transactions. Such unethical practice poses economic harm and mental disorders to organizations and clients. Therefore, the bank's reputation and client satisfaction might be damaged. Although individuals hold certain beliefs regarding behavior and ethics, occasionally, they might be forced to act against their beliefs. This is the case in employee fraud disclosure because when employees have established emotional (for example, a sense of loyalty) or mental relationships with their peers, they are less forthcoming about disclosing fraud. Our results showed a negative relationship between interpersonal effect and fraud disclosure. Transactional analysis refers to human interactions in that parties expect responses from each other. According to the reasoned action theory, most social actions are voluntarily controlled, which indicates that individuals have free options and decisions. In fraud whistleblowing by employees, employees' behavioral control and behavioral tendency determine fraud disclosure. Behavioral control factors refer to the belief in the presence or absence of resources and opportunities that can facilitate fraud disclosure. Blau proposes the exchange theory and regards it as the underlying and controlling element in human behavior that dominates group relationships. In the case of employee fraud disclosure, those who observe the fraudulent action or unethical behavior in banking fraud must have strong reasons to report and disclose it because if employees have a prior relationship (for example, if the fraudster has overlooked their fault or has done them a favor) with the fraudster, staff are mentally less forthcoming to report on their coworkers. Our results confirmed the mentioned behavior and showed that the transactional relationship between employees affects their fraud-disclosing tendency.

Financial stability is associated with present and future company policies. A financially stable policy is a long-term policy that does not need intervention in revenue and cost patterns. Since disclosing fraud or misconduct is not a usual course in employees' jobs, whistleblowing is difficult for employees because it harms their peers but benefits the organization. Therefore, when the bank's financial system is unstable, fraud and corruption will be more prevalent. As a result, internal controls will be inefficient, and employees disclosing fraud will be regarded as disloyal to their peers. Hence, employees will be less forthcoming in fraud disclosure because the financial instability also leads to increased misbehavior and more reluctance to such behavior. Our results confirmed that financial instability negatively affects fraud disclosure. Organizational changes refer to solutions proposed by different groups in the organization. Results revealed that deficient organizational changes negatively affect fraud disclosure. Organizational morality includes regulations, codes, standards, and principles that provide the procedures for ethical and conductive behaviors in special organizational conditions. Misconduct practices are all unfair legal or illegal behaviors. If an unethical and improper practice prevails in an organization, employees consider such behaviors a typical act and show a poor tendency to disclose it. Our results showed a negative relationship between organizational morality and fraud disclosure. Banks need comprehensive plans and controls concerning fraud disclosure. Hence, when fraud occurs, they are ready to take the necessary actions to prevent future fraud and enhance the fraud disclosure situation for the whistleblower. Such controls must also consider the reluctance to disclose fraud. Results showed that the effect of past fraud disclosure responses on fraud disclosure is insignificant. Organizational factors can affect fraud disclosure indirectly through psychological contracts. When inter-organizational factors, including transactional relationships, override their beliefs, an employee's fraud disclosure can change by psychological contract breach. Banks must provide several easily accessed communication channels that can respect fraudsters' privacy. These communication channels must enable timely and appropriate fraud disclosure for employees to resolve unethical issues with supervisors. Our results showed that employees tend to disclose fraud to supervisors rather than fraud whistleblowers and internal auditors.

6. Future Research Directions

Based on H1 and H2 results, future studies can focus on defining organizational culture regarding employee relationships based on written or implied laws and regulations as internal controls to prioritize bank benefits over interpersonal and transactional relationships between employees. Therefore, if employees witness fraud, they tend to disclose fraud.

Based on H3 and H4 results, the most efficient internal controls for employee tendency to disclose fraud are stability and efficient changes that indicate managerial capability. When banks' financial stability is strong, employees are more forthcoming and willing to reveal frauds and violations to maintain that stability. Therefore, by providing financial stability, managers can enhance and strengthen employee motivations and tendencies to be more controlled and ethical.

Based on H5 and H6 results, banks can enhance the fraud disclosure tendency by encouraging whistleblowers, for example, by rewarding them and guarding their privacy. Therefore, if fraud occurs, others are more willing to disclose it instead of being reluctant or silent. Banks can design efficient internal controls by implementing laws and regulations concerning organizational ethics and employee relationships. When there is a framework for employee relationships, factors leading to remaining silent concerning fraud disclosure and whistleblowing will be decreased.

Based on H7 results, banks can use implied psychological contracts to encourage employees' tendency to disclose fraud and not to commit fraud. When employees regard a bank or organization's property as part of their properties, they are more alert to corruption and protect properties adequately. If these factors and organizational factors are met, banks will be provided with optimal and efficient situations and results. Management relies on employees against fraud. Vigilant employees with better financial monitoring can help detect and identify fraud and reduce any opportunity that leads to fraud.

Managers and auditors must be aware of the situations that might eventuate in a psychological contract breach; therefore, they can change and enhance those situations. Management can apply plans to encourage and motivate staff to disclose fraud. This action might require internal and external auditors to ask employees whether they would instantly reveal the illegal or unethical practice. After auditors know the answer, they might need to change the fraud assessment process. Based on H8 results, since employees have closer relationships with their supervisors, banks can ensure employees' protection and enhance their confidence concerning fraud disclosure by increasing supervisors' realm of authority and activity.

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