Staff bonding and accounting fraud tendency: does cost of living matter?

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Abstract

Purpose: The paper explores the ramifications of rising costs of living on accounting fraud (ACF) as well as how it disrupts the effect of staff bonding (SB) on ACF tendencies.

Design/methodology/approach: Data were collected from 310 respondents using a structured questionnaire and analysed using the partial least squares structural equation model.

Findings: The study reveals that rising costs of living increase ACF tendencies, while SB reduces it. However, the study also shows that costs of living decrease the effectiveness of SB as a corporate governance measure, aligning with the Stimulus, Capability, Opportunity, Rationalisation, and Ego (S.C.O.R.E.) theory.

Originality/value: The paper's theoretical contribution is consistent with the S.C.O.R.E. theory. The study concluded that working with hungry employees, whose disposable incomes are further worsened by rising costs of living, is not only an anticipatory accident but also a timed bomb waiting to explode. Hence, as the leading study on the intricate relationships, one takeaway from the study is that strengthening SB conditions and maintaining salary parity with rising costs of living are two excellent strategies for mitigating ACF.

Keywords: Staff bonding, Costs of living, Accounting fraud tendency, Financial cooperatives, Fraud theory

1. Introduction

In recent times, scholars have asserted that honest people occasionally engage in dishonest behaviour (Knechel and Mintchik, 2022; Mazar *et al.*, 2008). This prompts crucial enquiries into the reasons behind this occurrence and the necessary actions to take. Meanwhile, recent literature has identified staff bonding (SB) as an emerging corporate governance practice among financial cooperatives in Ghana (Adusei *et al.*, 2023). However, empirical exploration into its efficacy in mitigating accounting fraud (ACF) is still pending. SB involves employees securing their jobs with sureties or guarantors (Adusei *et al.*, 2023). Additionally, staff provide

collateral, typically in the form of landed property, which can be liquidated to cover future losses relating to staff misappropriation.

Usually, fraudsters exploit financial gains at the expense of innocent victims, highlighting the urgent need to understand and mitigate this pervasive issue (Koomson *et al*., 2020; Sara *et al*., 2023). Unfortunately, escalating hardships (Cifas, 2022) often erode employees' purchasing power (Keith Neal, 2022) and compel them to indulge in ACF. Thus, amidst rising costs of living, adherence to SB arrangements is questionable. During periods of rising living costs, financial pressure causes employees to overlook the consequences of their bonding and engage in fraudulent activities for survival or personal gain. As they work with cash, accounting staff responsible for financial transactions are particularly tempted to engage in dishonest activities to meet pressing needs including medical bills, school fees, feeding and cloths, among others.

The motivation for this study stems from observing that, though ACF has always been a concern, the unprecedented increase in living costs following the pandemic in 2019 and the Russia–Ukraine war has resulted in an increase in fraud numbers (Keith Neal, 2022), warranting the need to explore this pervasive issue. Prices of goods and services have risen, creating substantial financial setbacks for employees. Despite the challenge of increased fraud incidents (Cifas, 2022), this study proved how SB can mitigate ACF. Also, the study looks at how the cost of living (COL) affects the effectiveness of SB in reducing the risk of ACF among financial cooperatives within the Catholic Diocese of Techiman, Ghana.

This study contributes to existing literature by being the first study to comprehensively explore the intricate relationships. It acknowledges that rising financial hardship increases employees' propensity to commit dovish crimes due to financial pressures and inadequate remuneration (Ekayani, 2020; Masterson and Yasenov, 2021; Saputra *et al*., 2020; Sara *et al*., 2023). And hence, focusing on the staff of the financial cooperatives, the study extends existing literature with valuable insights into the intricate relationships and addresses the literature gap on costs of living and SB ACF tendencies from the financial cooperatives.

The study provides actionable recommendations for corporate managers to understand the moderating effect of persistent price increases on fraud prevention through SB. It emphasizes the need for governments, shareholders and managers to address employee financial hardships and create policies for a sustainable and ethical work environment. Auditors can tailor audit methodologies taking clue from the findings, and financial institutions can use the findings to improve risk management strategies. The findings support policy formulation that strengthens corporate governance, ethical conduct and financial stability.

Chronologically, in the following sections, we review a theory that explains the intricate relationship between the study's constructs, review and discuss empirical studies, develop hypotheses and methods to address the study's objectives, present the findings and finally present the study's conclusion and recommendations.

2. Theoretical literature review

The fraud triangle theory, developed by Donald R. Cressey in the 1950s, explains the motivations behind fraudulent behaviour. It states that individuals become trust violators when they have a financial issue they cannot share, believe they can resolve it by breaking financial trust and use self-adjusting justifications to justify their actions (Repousis *et al*., 2019). The theory has seen advancements over the years, with the most recent being the Stimulus,

Capability, Opportunity, Rationalisation, and Ego (S.C.O.R.E.) fraud theory developed by Vousinas (2019). This theory consists of five components: stimulation, capability, opportunity, rationalization and ego.

It appears that weak SB or non-bonding of staff creates a window of opportunity for fraudulent activities. Rising costs of living eventually sanction fraud and form the rationalization basis. Furthermore, the COL acts as a stimulus, particularly for employees who are poorly remunerated but manage or work with cash as part of their job role. This job role inherently provides the capacity to indulge in ACF. Especially if detected fraud cases go unpunished, this could possibly encourage many employees to indulge in fraudulent activities. Therefore, this study employed the S.C.O.R.E. theory, which is consistent with previous studies that have applied similar theories to comparable study contexts (Cheliatsidou *et al*., 2023; Koomson *et al*., 2020; Sakawa and Watanabel, 2022).

3. Empirical literature review and development of hypotheses

3.1 Staff bonding and accounting fraud tendency

Recent empirical studies have examined the relationship between SB and ACF tendencies. Adusei *et al*. (2023) found that strong SB, characterized by mutual accountability and surety arrangements, significantly reduces the likelihood of ACF in financial cooperatives. Similarly, Asmah *et al*. (2019) identified that inadequate internal controls and financial pressures among employees contribute to fraudulent behaviours in Ghana's banking sector, suggesting that enhanced staff cohesion and oversight can mitigate such risks. Furthermore, Onyuka and Otinga (2019) reported that robust internal controls and appropriate staff compensation are crucial in reducing fraud occurrences in Kenyan commercial banks, highlighting the importance of cohesive staff relationships and effective governance structures in deterring ACF.

Financial cooperatives, also known as credit unions, operate as member-owned organizations driven by a not-for-profit ethos. In Ghana, these cooperatives are regulated by the Department of Cooperatives, which also is mandated to audit them annually in compliance with legislative requirements. A defining characteristic of financial cooperatives is their democratic governance structure, which ensures equal benefits for all members. To bolster financial stability and increase surplus, some Ghanaian financial cooperatives, according to Adusei *et al*. (2023), have implemented manager bonding as a governance strategy. However, in recent times, this practice has extended beyond managers to encompass all staff who handle money-related transactions, aimed at mitigating ACF risks and aligning staff interests with institutional goals. Upon employment, staff are required to execute a deed, supported by sureties or guarantors who pledge to indemnify the credit union in case of financial malfeasance (Adusei *et al*., 2023). Additionally, staff provide collateral in the form of landed property, which can be liquidated to cover future losses in the event of any misappropriation. It is anticipated that the implementation of bonding agreements will deter staff from participating in financial misconduct and ACF. Despite the absence of supporting literature, SB is expected to negatively affect ACF tendencies, assuming management achieves their desired outcomes.

Empirically, Adusei *et al*.'s (2023) study examined the relationship between manager bonding and technical efficiency of Ghanaian cooperative credit unions. They found that most credit unions were not technically efficient, despite the implementation of manager bonding practices. Despite being the only available literature on SB, the study did not explore the effect of SB on

ACF tendencies. To this date, existing literature leaves an unanswered question regarding whether the bonding arrangement effectively dissuades staff from engaging in ACF or not. Given this circumstance, the study proposes the following hypothesis:

H1. Staff bonding affects accounting fraud tendency.

3.2 Costs of living and accounting fraud tendency

Keith Neal (2022) asserts that "cost-of-living crisis" is widely used by charitable organizations, politicians and bankers. Also, Hourston (2022) defines costs of living as the actual decline in disposable income, adjusted for taxes and inflation. However, the study adopts Wilson and Westwater's (2022) definition, referring to the increase in essential expenses above average household income. Unfortunately, there is a dearth of empirical research on the effect of living expenses on ACF.

However, the World Bank Group (2022) predicts that the Russia–Ukraine conflict would disrupt global production, consumption and trade patterns, resulting in an increase in prices through 2024. Experts predicted that the COL crisis would plunge over 51 million people into extreme poverty, with Sub-Saharan Africa serving as a focal point (Molina *et al*., 2022). Rising prices of agri-food commodities are strongly linked to civil unrest (UNCTAD, 2022). Factors associated with financial crimes include poverty, inadequate compensation, high living expenses, greed, social pressure, laziness and a lack of severe consequences (Akanni *et al*., 2020). Masterson and Yasenov (2021) opine that living in a challenging environment can lead to long-term psychological issues like depression and social disaffection, thereby escalating antisocial behaviour.

Research on the relationship between COL and ACF in African developing countries is limited. However, a few studies have indicated that economic pressures can influence fraudulent behaviour. For instance, in Nigeria, rising living costs have been linked to increased financial crimes, as individuals seek alternative income sources to cope with economic hardships (Adewale *et al.*, 2023). Similarly, in Kenya, economic strains have been associated with higher incidences of fraud within financial institutions, suggesting that employees under financial pressure may resort to unethical practices. These findings underscore the need for robust internal controls and employee support systems to mitigate fraud risks in economically challenging environments, as the rising COL could potentially increase the likelihood of ACF among employees, as people need an amount of disposable income to survive. This pressure to pursue financial gain often leads to criminal activities in order to secure resources, aligning with the "life-first" adage. Therefore, to address the dearth of empirical research on the effect of rising living costs on ACF tendencies, we hypothesize that:

H2. Costs of living affect accounting fraud tendency.

3.3 Costs of living, staff bonding and accounting fraud tendency

The financial sector, which is crucial for economic growth, is particularly vulnerable to fraud. Financial cooperatives have implemented SB to discourage fraud, instilling fear of losing valuable property and betraying guarantors. However, the pressure of meeting daily needs and rising living costs can undermine this approach, increasing the risk that staff will ignore bonding conditions and engage in ACF for survival.

Regrettably, there is no empirical study examining the direct moderating effect of living costs on SB's effect on ACF tendencies except their interplay. For instance, studies have explored the interplay between COL, SB and ACF tendencies. Manley *et al*. (2023) highlight that financial pressures from rising living costs can increase employee fraud risk, emphasizing the need for robust internal controls.

Additionally, Sham *et al.* (2023) found that rationalization significantly influences workplace fraud, suggesting that strong SB and ethical cultures can mitigate such behaviours.

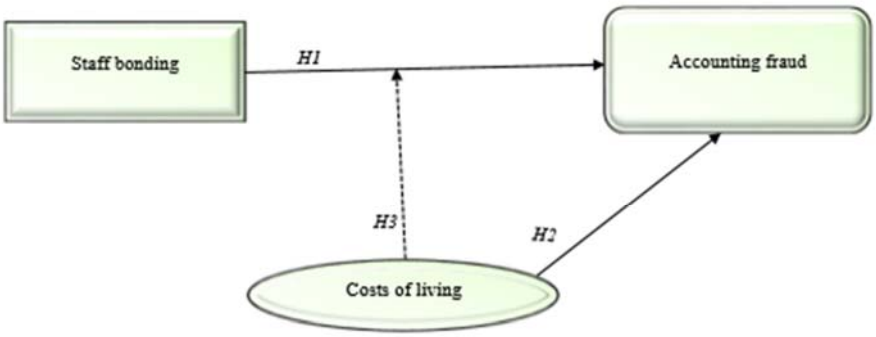
Adusei *et al*. (2023) assert that credit unions use SB to mitigate fraud, while Bah and Saari (2020) discovered regressive distributional effects of rising energy prices. Hence, Roszkowska and Melé (2021) assert that external pressures and social demands often sanction fraudulent activities. Rising living expenses could potentially widen the gap between employees' disposable income and societal expectations, increasing the risk of ACF.

Given the current gap in the literature regarding whether COL moderates the effect of SB on ACF tendencies, we hypothesize that:

H3. Cost of living moderates the effect of staff bonding on accounting fraud tendency.

The relationships between the variables, as shown in the above hypotheses, are clearly demonstrated in Figure 1 below.

4. Conceptual framework



Source(s): Authors' own work

Figure 1. Framework

5. Research design

Using the positivist paradigm and the quantitative approach, the study investigates factors that influence ACF among Catholic financial cooperatives in the Diocese of Techiman. As an exploratory study, we employ a cross-sectional survey design. The study, like Oppong *et al*. (2023), utilized the partial least squares structural equation model (PLS-SEM), which is a statistical method used to study complex relationships between variables. It helps researchers test hypotheses, build models and predict outcomes by analysing direct and indirect effects in data. It is popular for its flexibility with small samples and non-normal data. We addressed the research objectives using a blend of SPSS and SmartPLS techniques. We used the methodology, which integrates component analysis and multiple regression, to explore the

structural dynamics between independent and dependent constructs. We used the PLS-SEM because it can model complex relationships, handle non-normal data and identify predictive links across various fields (Oppong *et al*., 2023).

5.1 Sample size and data collection technique

We focused on 334 employees from 45 financial cooperatives under the Catholic Diocese of Techiman's BACCSOD brand, covering staff handling money-related transactions. We used convenience sampling to target Catholic financial cooperatives based on their faith-based nature and willingness to participate in the study. Also, BACCSOD financial cooperatives have strategically balanced locations in both the remote areas and big cities with over 50 years of operational experience since the establishment in 1974. This, among other things, validated its choice for the study and made it highly representative of the study population in Ghana. The institutions under the brand have a unique origin and are most suitable for the study. The consolidated assets, customers and staff of all the financial cooperatives under the brand stand out as the largest in the country. Due to the staff's exposure to fraud, we employed the purposive sampling technique for the study. The study used a sample size of 310, exceeding the 146 minimum suggested by Adam's (2020) formula, supporting his claim that larger sample sizes ensure accuracy. Adam's (2020) formula used is a modified version of Yamene's 1967 formula, as shown below:

$$n = \frac{N}{1 + N\varepsilon^2} \text{ whereby : } \varepsilon = \frac{\rho e}{t}$$

$$\varepsilon = (4 * 0.03) / (1.96) = 0.06218$$

$$n = 334 \Big/ \left[1 + 334(0.06218)^2\right]$$

$$n = 146$$

The researchers administered 334 questionnaires and received 310 responses, representing a 92.8% reliable response rate (Creswell and Clark, 2017; Saunders *et al.*, 2018). We collected the data using a structured questionnaire with closed-ended questions.

5.2 Measurement of constructs

To assess latent constructs, the study used the reflective measurement model, where observed indicators reflect these underlying constructs. We measured each indicator using a five-point Likert scale. The dependent construct, ACF tendency, had five indicators. And the independent construct, SB, was measured with six indicators. Additionally, the moderating construct, COL, which was also treated as an independent variable, was measured using four indicators.

5.3 Validity and reliability

The study explored three key constructs: SB, COL and ACF tendency. We ensured both construct and content validity, emphasizing consistency (Oppong *et al*., 2023; Straus, 2017). The study followed the rule that a Cronbach alpha of 0.7 or higher indicates fair reliability, 0.8 or higher is good and 0.9 or higher is excellent (Arbab *et al*., 2017). All items and scales had a Cronbach alpha coefficient above 0.7, ensuring reliability (Biasutti and Frate, 2017; Singh,

2017). We used composite reliability procedures to address validity issues. Convergent validity was assessed with average variance extracted (AVE) and discriminant validity with the Heterotrait and Monotrait (HTMT) matrix and Fornell–Larcker criterion to ensure that common method bias, among others, was mitigated.

6. Empirical results and discussions

6.1 Exploratory factor analysis

The study utilized EFA to identify items highly correlated to the latent constructs and weakly correlated with external constructs. EFA distinguishes between conjectural constructs explaining construct ordering. Also, this study has satisfied the requirement of using a scale interval to assess the constructs for EFA (Oppong *et al*., 2023).

6.1.1 Common method bias

The researchers mitigated common method bias through an effective procedural design and statistical control, adhering to Cycyota and Harrison's (2006) recommendations. Harman's one-factor test confirmed the issue, with a 28% extraction result (as shown in Table 1), significantly below the 50% maximum threshold (Podsakoff *et al*., 2003).

Table 1. Total variance explained

	Initial eigenvalues			Extraction sums of squared loadings		
Component	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	4.777	28.100	28.100	4.777	28.100	28.100
2	4.197	24.690	52.790	4.197	24.690	52.790
3	1.937	11.392	64.182	1.937	11.392	64.182
4	0.884	5.201	69.383			
5	0.687	4.043	73.426			
6	0.633	3.723	77.149			
7	0.599	3.521	80.670			
8	0.533	3.135	83.805			
9	0.454	2.671	86.476			
10	0.414	2.433	88.909			
11	0.375	2.204	91.113			
12	0.348	2.045	93.158			
13	0.277	1.631	94.789			
14	0.267	1.569	96.358			
15	0.236	1.388	97.746			
16	0.202	1.189	98.935			
17	0.181	1.065	100.000			

Note(s): Extraction method: Principal component analysis
Source(s): Authors' own work

6.1.2 KMO and Bartlett's test

The Kaiser–Meyer–Olkin (KMO) results show a value of 0.909, exceeding the 0.5 threshold, indicating that the constructs were independent (Table 2). This is confirmed by the Bartlett's test of sphericity, which has a *p*-value of $0.000 < 0.05$. Therefore, regardless of comparison to 0 or an identity matrix, there is a link between values within dimensions, suggesting that other factors could explain internal associations.

Table 2. KMO and Bartlett's test

Kaiser–Meyer–Olkin measure of sampling adequacy		0.848
Bartlett's test of sphericity	Approx. Chi-Square	2875.422
	df	136
	Sig	0.000

Source(s): Authors' own work

6.2 Measurement scale evaluation

After employing the reflection measurement model to verify the study scale's efficacy, we used the PLS-SEM to assess the proposed model.

6.3 Measurement model

The measurement model evaluates the reliability and consistency of study constructs using construct reliability and discriminant and convergent validity tests, with construct reliability assessing the consistency of the study constructs.

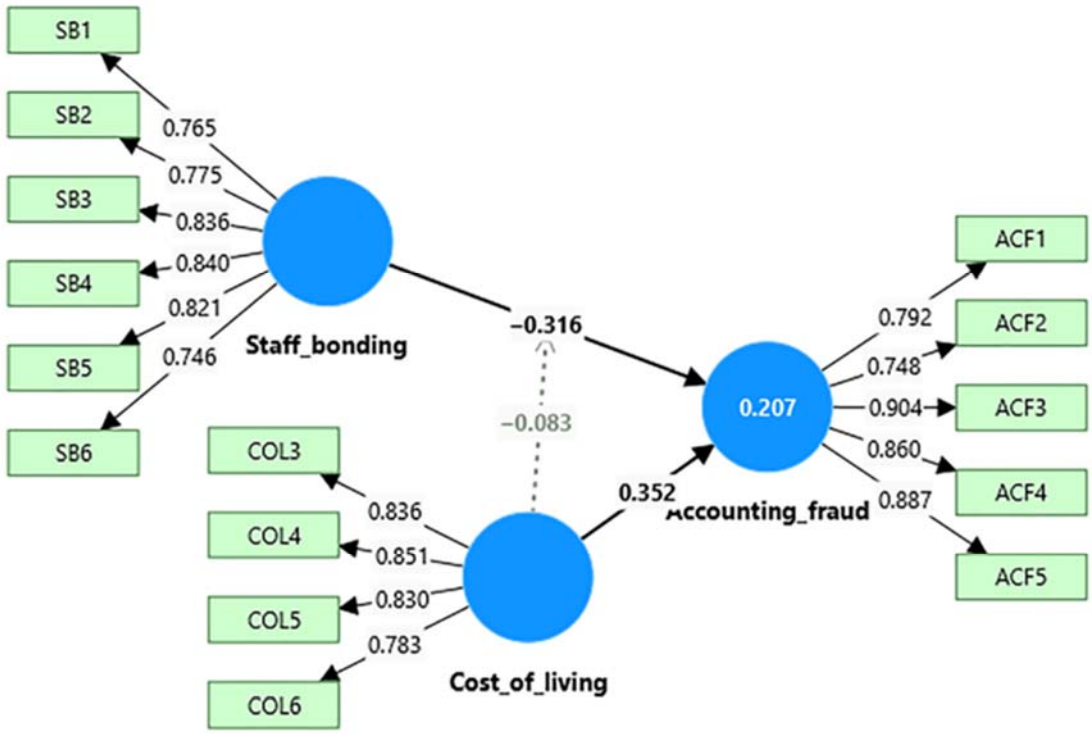
6.3.1 Reliability of indicators

The study's indicators showed factor loadings greater than 0.7 (Hair *et al*., 2020), indicating their reliability. The results, as shown in Table 3 and Figure 2, indicate that the items measured approximately 70% of the latent constructs they were designed to measure, exceeding the minimum threshold.

Table 3. Factor loading, multicollinearity, reliability and validity

Factors	VIF	Loadings	CA	CR	AVE
Accounting fraud tendency	–	–	0.896	0.923	0.706
ACF1	2.243	0.792			
ACF2	2.094	0.748			
ACF3	3.541	0.904			
ACF4	2.858	0.860			
ACF5	2.967	0.887			
Cost of living	–	–	0.845	0.895	0.681
COL3	1.758	0.836			
COL4	2.127	0.851			
COL5	2.195	0.830			
COL6	1.708	0.783			
Staff bonding			0.886	0.913	0.637
SB1	1.706	0.765			
SB2	2.054	0.775			
SB3	2.411	0.836			
SB4	2.366	0.840			
SB5	2.299	0.821			
SB6	1.899	0.746			

Note(s): CA = Cronbach Alpha; CR = Composite Reliability
Source(s): Authors' own work



Source(s): Authors' own work

Figure 2. Measurement model

6.3.2 Reliability of constructs

The study assessed the model's construct-level reliability using Cronbach alpha and composite reliability. The model's reliability was satisfactory because the composite reliability and Cronbach alpha scores were greater than 0.7 (Hair *et al*., 2019a, b). The results showed no collinearity issues among the indicators since all the variable inflation factor (VIFS) values are less than 5 (Hair *et al*., 2019a, b; Tay and Zamore, 2024).

6.3.3 Discriminant validity

The study used the Fornell–Larcker criterion and the HTMT ratio to evaluate the discriminant validity of latent constructs. The results on Tables 4 and 5 show that the square root of each construct's AVE was greater than its correlation with other constructs, and all inter-construct correlation values were less than 0.9 (Hair *et al*., 2019a, b; Henseler *et al*., 2015).

Table 4. Discriminant validity - Fornell–Larcker criterion

Constructs	ACF	SB	COL
Accounting fraud (ACF)	*0.840*		
Staff bonding (SB)	−0.280	*0.798*	
Cost of living (COL)	0.315	0.109	*0.825*

Source(s): Authors' own work

Table 5. Heterotrait monotrait (HTMT) ratio matrix

Constructs	ACF	COL	SB	COL × SB
Accounting fraud (ACF)				
Cost of living (COL)	0.353			
Staff bonding (SB)	0.298	0.135		
Cost of living × Staff bonding (COL × SB)	0.091	0.040	0.034	

Source(s): Authors' own work

6.3.4 Convergent validity

Convergent validity is the condition in which a latent construct's measurement items correlate with each other or collectively explain a latent concept. This study assesses convergent validity using the average variance extracted (AVE) method. The results in Table 3 presents the AVE results, which demonstrate convergent validity as all values, ranging from 0.637 to 0.706, exceeded the minimal threshold of 0.5 (Hair *et al*., 2019a, b).

6.4 Structural model evaluation

The study evaluates the structural model using parameters and model fit indices and then employs boot trapping techniques to resample the data 5,000 times. This allows the SEM to accurately test the internal model, ensuring accurate results.

6.4.1 Multicollinearity

The researchers found no significant multicollinearity issue with the data, as all VIF values were less than 5 (Hair *et al*., 2020). This implies that the constructs were independent of each other.

6.4.2 Model fit analysis

The standard deviation represents the difference between sample means and observed means. The study found no significant departure in the means of costs of living and SB from their observed means (Table 6). Because the standardized root mean square residual value (0.063) is less than the maximum threshold of 0.08 (Table 7), the model matched the study (Liu *et al*., 2024). The VIF values in Table 3 further confirmed the study model's robustness, with all estimates falling below 5 (Hair *et al*., 2020).

Table 6. Descriptive and normality test statistics

Constructs	M	SD	Skewness	Kurtosis
Staff bonding	3.7489	1.03566	−0.627	−0.476
Costs of living	3.8508	1.02582	−0.841	0.049
Accounting fraud tendency	2.5619	1.21446	0.386	−1.002

Note(s): M = Mean; SD = Standard Deviation
Source(s): Authors' own work

Table 7. Model fit summary

	Saturated model	Estimated model
SRMR	0.062	0.062
d_ULS	0.467	0.466
d_G	0.207	0.206
Chi-square	378.099	377.338
NFI	0.857	0.857

Note(s): SRMR = Standardized Root Mean Square Residual; d_ULS = Squared Euclidean Distance - Unweighted Least Squares; d_G = Geodesic Distance - Generalized Least Squares; NFI = Normed Fit Index
Source(s): Authors' own work

6.4.3 Predictive relevance

The study reveals that SB and rising costs of living predict approximately 20.7% of ACF tendency. Although the prediction is weak (Mohammadi *et al*., 2020), the model can forecast future trends of ACF. The effect size (f^2) was assessed using f^2 values benchmarks of 0.02, 0.15 and 0.35 (Hair *et al*., 2019a, b). Table 8 shows that all the other factors had acceptable effect sizes ($f^2 > 0.02$) except for the moderating path.

Table 8. Path analysis

Constructs	Hypotheses	Path coefficients	*t*-values	f^2	*p*-values	Decision
Staff bonding → Accounting fraud	H1	−0.316	6.692	0.124	0.000	Supported
Cost of living → Accounting fraud	H2	0.352	8.348	0.154	0.000	Supported
Cost of living × Staff bonding → Accounting fraud	H2	−0.083	1.990	0.010	0.047	Supported

Source(s): Authors' own work

6.5 Testing of hypotheses

Overall, the study tested three hypotheses (H1, H2 and H3) to explore the moderating effect of costs of living on the relationship between SB and ACF tendency. The criteria for accepting or rejecting a hypothesis depended on the *t*-value and the *p*-value. According to the rule of thumb, the *t*-value should be greater than 1.96 (*t*-value > 1.96), and the *p*-value should be less than 0.05 (*p*-value < 0.05). All the study hypotheses (H1, H2 and H3) were supported following the analysis of the results.

The illustrated results in Table 8 show that SB had a significantly negative effect on ACF tendency ($B = -0.316$; $t = 6.692$; $p = 0.000$). The findings support the reasons why financial cooperative managements implemented SB as a corporate governance measure which was to mitigate ACF (Adusei *et al*., 2023).

The results also demonstrate that COL effect on ACF tendencies was statistically significant and positive ($B = 0.352$; $t = 8.348$; $p = 0.000$). The findings support the assertion of Molina *et al*. (2022), UNCTAD (2022), Akanni *et al*. (2020) and Masterson and Yasenov (2021) that COL has an effect on ACF tendency.

The study results presented in Table 8 also show that the effect of SB on ACF tendency was significantly negatively moderated by costs of living ($B = -0.083$; $t = 1.990$; $p = 0.000$). The findings affirm the assertion of Masterson and Yasenov (2021) and Akanni *et al*. (2020) that costs of living is able to disrupt employees' behaviour.

The researchers proceeded to further examine the moderation effect of costs of living on the effect of SB on ACF tendency using slope analysis. The analysis illustrated in Figure 4 shows that the line for high costs of living is steeper than the line for low costs of living. This means that as living costs increase, the effectiveness of SB conditions in preventing ACF decreases, and the opposite is true.

These results highlight critical trends that warrant deeper exploration, which is addressed in the subsequent discussion as depicted in Section 6.6, while Section 6.7 demonstrates how the findings aligned with the global picture.

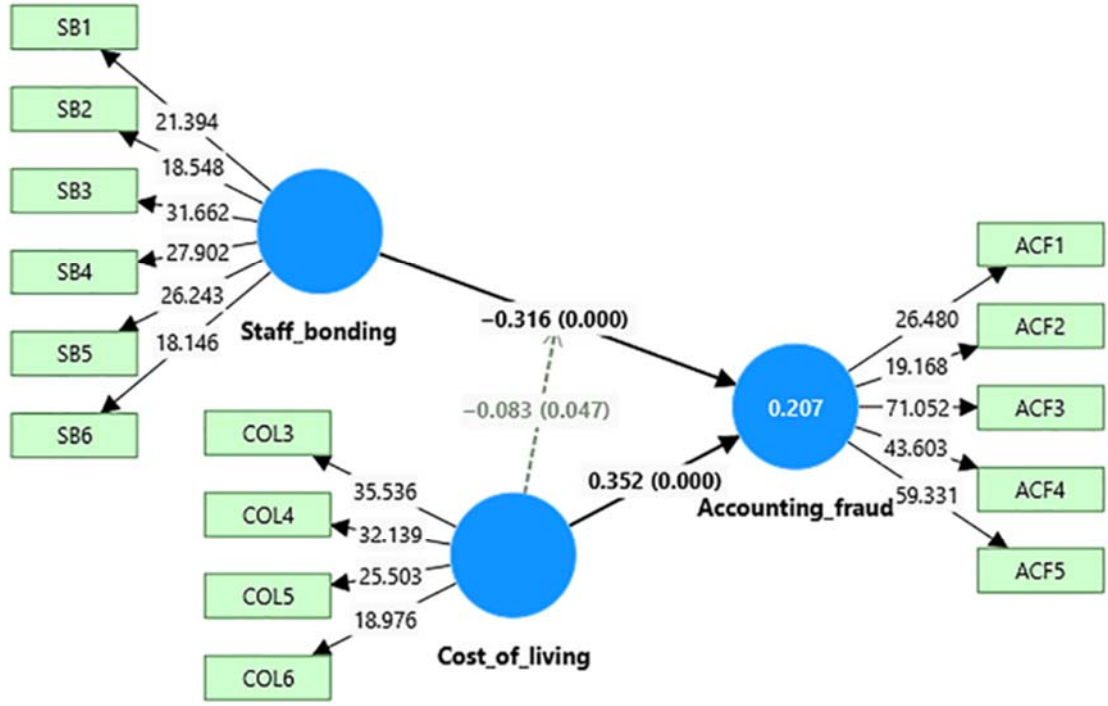
6.6 Discussion of key findings

ACF affects the survival of businesses and corporations, making it imperative to implement effective corporate governance measures to mitigate its pervasive impact. Considering this, the study explores the effect of costs of living on ACF and its moderating effect on the relationship between SB and ACF tendency, utilizing three distinct hypotheses from the perspective of financial cooperatives.

As shown in Figure 2, the test results of the first hypothesis (H1) demonstrate that the statistical effect of SB on ACF tendency was negatively significant ($B = -0.316$; $t = 6.692$; $p = 0.000$). This indicates that strengthening SB as a corporate governance measure had the potential to reduce ACF tendencies by 31.6%. The fact that employees are made to execute a deed, supported by sureties or guarantors who pledge to indemnify the financial cooperative in case of financial malfeasance (Adusei *et al*., 2023), deters employees from engaging in ACF. This clearly explains why SB has a negative significant effect on the likelihood of ACF. Therefore, it is advisable that entrepreneurs and managers of businesses intensify the SB concept for the employment of staff who handle money-related transactions. This is an effective corporate governance measure because it ensures that businesses and corporations have the right to recover a portion, if not all, of their misappropriated assets or money should an unlikely event occur. This also checks employees because they know that misbehaviour will cost them their job, property and friends' and family's trust, just in a day. As the first study to explore this important gap in the literature, these findings add a layer to the body of existing literature. Therefore, the study's first hypothesis (H1) was supported.

The test for the second hypothesis (H2) demonstrates that COL has a positive effect on ACF tendency ($B = 0.352$; $t = 8.348$; $p = 0.000$), as shown in Figure 3. As a premier study on the effect of COL on ACF tendency, the results reveal that COL was responsible for 35.2% of the increase in ACF tendency among staff of financial cooperatives. It is obvious that rising costs of living lead to regressive cost-cutting, such as withdrawing or reducing controls like audits and board and committees' meetings, among others. This creates opportunities for fraudulent activities. Combining this with the financial pressure employees face due to increased living costs can lead to the rationalization of dishonest behaviour as a survival necessity, thereby increasing the likelihood of ACF. As a result, the study emphasized that addressing the effect of COL on ACF is critical for financial cooperatives. This study aligns with the assertion of Akanni *et al*. (2020) that financial crimes are associated with a number of factors, including

high living expenses, inadequate compensation and social pressure, among others. The result is also consistent with the assertion of Masterson and Yasenov (2021) that living in extremely challenging circumstances has long-term psychological effects like depression and social disaffection, which can exacerbate the propensity for antisocial behaviour. Therefore, the second hypothesis (H2) was supported.

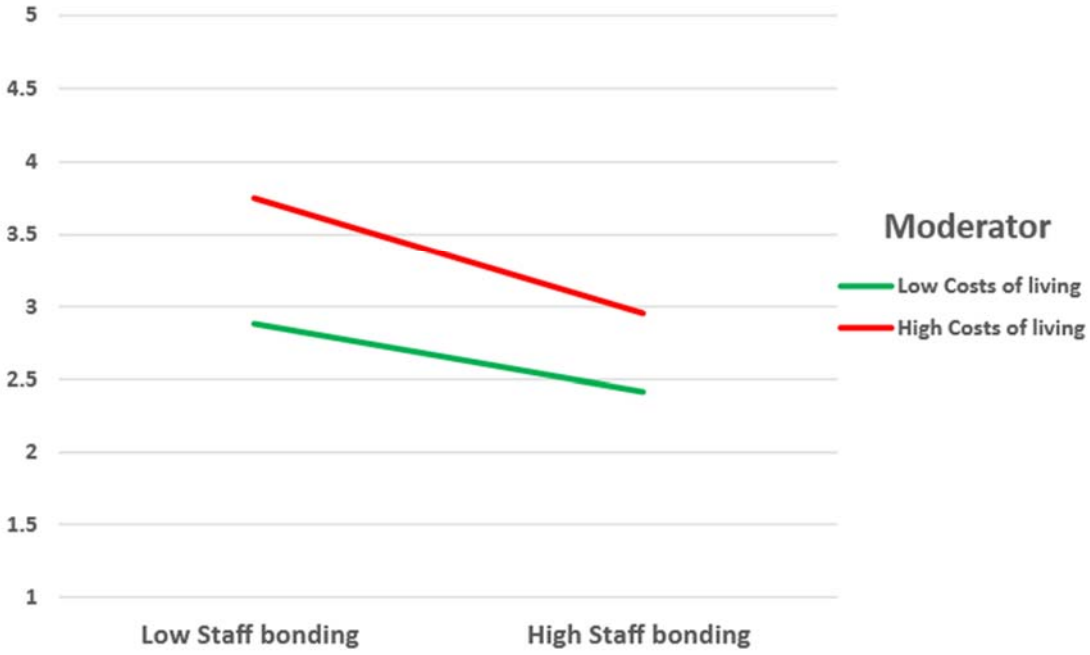


Source(s): Authors' own work

Figure 3. Structural model

Consequently, the following insightful findings led to the acceptance of the last hypothesis (H3). The study established that costs of living significantly weaken the ability of SB conditions to mitigate ACF among staff of financial cooperatives ($B = -0.083$; $t = 1.990$; $p = 0.000$). This implies that whenever prices of goods and services rise, there is an 8.3% drop in the efficacy of SB as a corporate governance measure against the occurrence of ACF. Therefore, we cannot fully trust the SB arrangement as a measure against ACF during periods of rising costs of living. As a leading study on the moderating effect of costs of living on the effect of SB on ACF tendency, the study has actionable implications for managers of financial cooperatives and corporations who will be implementing this corporate governance measure in the near future. Therefore, management should aggressively address staff standards of living to ensure that SB, like other corporate governance measures, works effectively. Therefore, it is crucial for managers and entrepreneurs to understand that working with a hungry employee whose disposable income is further worsened due to rising costs of living is an accident waiting to happen.

To further explore the depth of the moderating effect of costs of living on ACF tendency, we performed the slope analysis, as shown in Figure 4. The results show that at high levels of costs of living, the preventive ability of SB on ACF occurrence is low, and hence, SB is at its best against ACF when the COL is low. The red line represents the high COL, which signals the potential for an increase in ACF, whereas the green line represents the opposite. This therefore implies that working with hungry employees whose disposable incomes are further worsened due to rising costs of living is not only an accident waiting to happen but also that the survival of the business or corporation is being threatened by a timed bomb awaiting an explosion.



Source(s): Authors' own work

Figure 4. Slope analysis

6.7 Global alignment of the findings

The findings of this study align with results from global research that explores similar dynamics of corporate governance, economic stressors and ACF tendencies. For example, studies in the United States of America and Europe highlight the significant role of corporate governance mechanisms, including SB and accountability frameworks, in curbing fraudulent activities. Comparable to Adusei *et al.*'s (2023) findings, research by Chen *et al*. (2020) in China underscores that fostering trust and accountability through corporate bonding significantly deters unethical practices in financial institutions. By requiring employees to pledge personal or collective responsibility, organizations mitigate risks, as employees are aware of tangible repercussions for misconduct.

Similarly, the positive correlation between the COL and ACF tendencies resonates with findings from developing economies. Research in Sub-Saharan Africa and Latin America (Akanni *et al*., 2020) shows that economic hardships, such as inflation and low wages, contribute to financial malfeasance. Employees under economic strain may rationalize fraud as a coping mechanism, a sentiment echoed in Masterson and Yasenov's (2021) work on the psychological effects of financial pressure. These studies suggest that while corporate

governance measures like SB are effective, their efficacy diminishes under severe economic conditions.

Furthermore, the moderating impact of rising costs of living on the effectiveness of SB mirrors findings from Southeast Asia. For instance, Rahman *et al*. (2019) found that during periods of economic instability, even robust governance measures fail to counteract the increased likelihood of fraud, driven by heightened employee financial stress. This underscores the importance of holistic strategies that address both governance and employee welfare to mitigate fraud risks.

Globally, these insights emphasize the need for adaptive governance practices that consider socioeconomic conditions, underscoring that economic stability is integral to sustaining corporate integrity and preventing fraud.

7. Conclusion

The study reveals that strengthening SB reduces ACF, but rising costs of living increase fraud tendencies and diminish bonding effectiveness. Addressing this requires financial cooperatives to improve employee living standards by adjusting salaries to match inflation. Extending Vousinas' S.C.O.R.E. fraud theory, the research emphasizes that the efficacy of SB depends on alleviating employees' financial burdens. Persistently high living costs reduce purchasing power, prompting dishonest behaviours to bridge income gaps. Governments must focus on controlling living costs and improving standards of living, while businesses should implement salary reviews alongside robust governance measures to curb ACF tendencies.

The findings highlight critical implications for policymakers and businesses. Strengthening SB can significantly reduce ACF, offering an effective corporate governance tool. Policymakers should promote regulatory frameworks encouraging such measures. However, rising costs of living weaken this preventive effect, exacerbating fraud tendencies. Policymakers must address economic pressures through wage policies and inflation control to safeguard corporate governance efficacy. Businesses should adopt holistic strategies, balancing SB with improved employee welfare to mitigate fraud risks, thereby enhancing economic stability and commercial resilience. Neglecting these measures threatens both organizational survival and broader economic health.

Despite the numerous positives spelt out in this study, the study is constrained by its focus on financial cooperatives in a single region, limiting the generalization of findings across other business types and financial cooperatives across the country. It also primarily considers SB and COL without exploring additional corporate governance measures or psychological factors influencing ACF. Furthermore, the study lacks longitudinal analysis, which could better capture the dynamic effects of living costs over time.

It is therefore suggested that future studies should explore additional governance mechanisms alongside SB, such as technological solutions or employee training programs. Expanding research to diverse industries and other financial cooperatives could provide broader applicability. Moreover, longitudinal studies and cross-cultural analyses could better understand how evolving economic conditions influence fraud tendencies.

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