

Governance-Risk Decoupling: Operational Risk Management, Board Independence, and Operational Resilience in Ghanaian Banks: An Emerging-Market Perspective

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Abstract

In an era of economic shocks, digital disruptions, and escalating systemic risks, operational resilience has become a critical determinant of stability and trust in the banking system. This study investigates the key drivers of operational resilience in Ghanaian commercial banks, an emerging-market context where governance models may differ from Western norms. The research employs an exploratory sequential mixed-methods design. Initial qualitative phase involved in-depth interviews with ten senior risk and governance experts, analyzed via thematic analysis. The subsequent quantitative phase surveyed 384 banking professionals. Covariance-based structural equation modeling (SEM), incorporating an integrated interaction term, was used to test relationships. Strong Operational Risk Management (ORM) emerges as the most powerful driver of operational resilience. Board Independence shows only a modest direct positive effect. Notably, higher board independence slightly weakens the positive impact of ORM on resilience (significant negative interaction), indicating governance-risk decoupling. In this context, genuine resilience stems primarily from deep operational capabilities rather than formally independent boards; ceremonial adoption of independence, disconnected from day-to-day risk processes, can subtly undermine resilience. Drawing on the Resource-Based View, Risk Governance Theory, and Institutional Theory, this paper provides evidence-based insights into why Western-style board independence may not translate effectively to emerging financial systems like Ghana's. It challenges the universal application of such governance models and highlights the primacy of embedded operational risk capabilities for true resilience, offering practical implications for regulators, bank leaders, and governance reformers in developing economies.

Keywords: Operational Resilience, Governance-Risk Decoupling, Operational Risk Management, Board Independence, Emerging Markets

1. Introduction

In this era of rising cyber threats, digital interconnectedness, and macroeconomic uncertainty, operational resilience has shifted from a mere compliance requirement to a core strategic priority for banks worldwide. The capacity to anticipate, absorb, and rapidly recover from disruptions now determines long-term survival and competitive edge (Dhingra & Sharma, 2025). For banking institutions, resilience is no longer only about keeping systems running. It is about creating adaptable structures that protect essential services and preserve customer confidence during severe stress (Sylvia et al., 2024). This challenge is particularly acute in emerging economies such as Ghana.



Ghanaian banks operate amid fragile infrastructure, frequent regulatory change, and multiple risks (Grebe and Marx, 2023). The banking sector in Ghana is a vital engine of economic growth, serving as the primary conduit for financial intermediation, facilitating domestic and international trade, and mobilizing savings for investment (Bamfo, 2024; Yeboah, 2020). A stable and resilient banking sector is therefore indispensable for the nation's economic prosperity and development. Conversely, financial crises can have devastating consequences, leading to credit crunches, reduced investment, increased unemployment, and a significant decline in GDP, as witnessed during the 2018 banking sector clean-up (Kovalchuk, 2025).

The prolonged effects of the COVID-19 pandemic further revealed deep gaps in risk oversight and governance within the sector. However, as stated in Waliullah et al. (2025), recapitalisation and new regulations followed, but serious vulnerabilities persist, including risk concentration, cyber insecurity, and weak internal controls. Experience shows that resilience cannot be legislated; it must rest on robust risk management systems combined with effective governance (Singhania et al., 2022).

Within this landscape, Operational Risk Management (ORM) and Board Independence (BI) are seen as central and interconnected mechanisms. ORM supplies the technical processes for identifying, measuring, and controlling operational exposures. Board Independence, in turn, is expected to deliver objective, transparent, and strategically informed oversight. In a developed market, these two elements work together seamlessly. ORM provides rigour (Okodion & Angela, 2025) while independent directors offer stewardship (Crocì, Hertig, & Khoja, 2023; Wu & Wang, 2023). Yet in many emerging markets, the link is often superficial. Reforms tend to prioritise the appearance of good practice rather than its genuine integration into daily operations. This raises a vital question that remains under-studied: does board independence truly enhance operational resilience, or does it sometimes serve mainly as a ceremonial device to signal legitimacy to external stakeholders?

Global research on the governance–resilience relationship is growing (Irigaray & Stocker, 2024; Hussain et al., 2023), but most studies reflect the institutional conditions of advanced economies, such as strong enforcement, rich data environments, and entrenched accountability norms. For instance, studies by Greapcă (2024) on European banks and Addo et al. (2025) on East Asian financial institutions highlight the positive correlation between board independence and robust risk management practices, attributing this to well-established regulatory frameworks and high levels of corporate governance maturity. However, these studies often overlook the unique challenges faced by emerging markets.

Emerging markets, by contrast, are characterised by weaker enforcement, information asymmetry, and hierarchical cultures (Khan et al., 2022). In such settings, governance structures can become performative rather than functional, leading to a disconnect between formal policies and actual operational behavior (Kataike and Gellynck, 2018). While some research has explored the individual impact of ORM (Maulana et al., 2024; Yousef et al., 2023; Oye, 2020) or board characteristics (Mwakitalima & Mnzava, 2024; Abiad et al., 2025; Awad et al., 2024) on bank performance in emerging economies, there is a notable gap in understanding how these two critical elements interact within such contexts, particularly concerning operational resilience.

Specifically, prior studies have not adequately addressed whether the formal adoption of board independence in emerging markets genuinely enhances the effectiveness of ORM in building resilience or if it merely serves as a symbolic gesture, potentially leading to unintended consequences. This study, therefore, moves beyond asking whether ORM and BI individually influence resilience. It examines how they interact and, in particular, whether their joint effect reveals synergy or what we term governance–risk decoupling, a situation in which formal governance arrangements remain disconnected from the operational processes they are meant to govern.

We developed this idea through three complementary theoretical lenses. Risk Governance Theory views resilience as the result of governance systems that embed risk considerations into strategy and decision-making (Trump et al., 2019). The Resource-Based View (RBV) recasts ORM as a valuable, rare, and hard-to-imitate capability that drives adaptability and competitive advantage (Kero & Bogale, 2023; Dhruvo et al., 2024). Institutional Theory explains why organisations facing external legitimacy pressures may adopt practices ceremonially, producing a gap between formal structures and actual behaviour (Galleli & Amaral, 2025). Integrating these perspectives, we propose that although ORM and BI can each support resilience, their combined impact hinges on whether board independence functions as real oversight or merely as a symbolic artefact.

The Ghanaian banking sector offers an ideal setting to test these ideas. After the crisis, Ghanaian banks adopted Basel-consistent ORM frameworks and mandatory independent directors. Nevertheless, ongoing frictions such as limited director risk expertise, hierarchical cultures, and restricted information flows suggest that formal adoption does not automatically produce substantive integration (Adu, 2024; Ayam & Ayam, 2025). Ghana, therefore, allows a sharp examination of the limits of risk–governance alignment in emerging financial systems. This paper makes three clear contributions. First, it extends Risk Governance Theory by introducing and empirically confirming the concept of governance–risk decoupling, thereby explaining why similar governance arrangements produce different resilience outcomes across institutional contexts.

Second, it refines the Resource-Based View by showing that the strategic value of ORM depends on its effective linkage with governance oversight. Third, it advances Institutional Theory by providing quantitative evidence of the performance costs of ceremonial adoption. Methodologically, we employ an exploratory sequential mixed-methods design and covariance-based structural equation modelling to assess direct effects and interaction effects. In the end, we argue that in emerging markets, operational resilience is not an automatic outcome of imported governance models. It emerges from the depth to which risk management is embedded in organisational decision-making, an outcome shaped by the complex interplay of technical capability, governance substance, and institutional environment.

The rest of the paper proceeds as follows. Section 2 reviews the literature and presents the theoretical framework. Section 3 describes the research methodology. Section 4 reports the results. Section 5 discusses findings and implications, and Section 6 offers conclusions and suggestions for policy and future research.

2. Literature Review

2.1. The Resource-Based View: ORM as an Operational Risk Management as a Strategic Resource

The Resource-Based View (RBV) holds that lasting competitive advantage comes from resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991; Wernerfelt, 1984). From this perspective, operational risk management (ORM) is no longer viewed as a mere compliance obligation. Instead, it functions as a strategic, knowledge-based resource (Kero & Bogale, 2023; Dhrubo et al., 2024). A mature ORM system creates a learning-oriented structure. It weaves risk identification, assessment, mitigation, and feedback loops into everyday operations. These systems foster transparency, support real-time decisions, and embed organisational learning. In doing so, they greatly improve the bank's ability to respond to unexpected shocks (Oko-Odion & Angela, 2025). Empirical studies confirm the value of such systems. Banks with advanced ORM frameworks consistently outperform their peers during crises (Jadwani, Parkhi & Mitra, 2024). This evidence supports a central idea: operational resilience arises primarily from the internal accumulation of difficult-to-copy resources, not simply from meeting external regulatory demands (Zungu, Laryea & Nkado, 2025; Georgescu et al., 2024). Accordingly, the first hypothesis is derived:

H₁: Operational risk management practices have a significant positive effect on the operational resilience of Ghanaian banks.

2.2. Risk Governance Theory: The Oversight Imperative of Board Independence

Risk Governance Theory stresses the need for close alignment between governance structures and enterprise risk management systems (Addae, Mota & Moreira, 2023; Anton, Baba & Bucşoiu, 2025). It sees operational resilience as the result of governance arrangements that firmly embed risk oversight into strategic decision-making and performance evaluation. Within this theory, board independence (BI) plays a vital role. Independent directors bring objectivity. They reduce managerial entrenchment. They also enforce a prudent risk appetite (Handoyo, 2024; Amin et al., 2024). When independent directors possess relevant expertise and receive timely operational data, they can significantly strengthen the bank's overall risk posture (Crocì et al., 2023; Wu & Wang, 2023). Yet the real impact of board independence depends heavily on supporting conditions. These include information transparency, director expertise, and institutional maturity. In emerging markets, these conditions are often weak or uneven. As a result, formal independence does not always produce substantive oversight (Musallam, 2024; Adu, 2024). Several scholars observe that independence without genuine information symmetry can easily slide into ceremonial monitoring rather than active, informed stewardship (Nazliben, Renneboog & Uduwalage, 2023). We therefore propose the second hypothesis:

H₂: Board independence has a significant positive effect on the operational resilience of Ghanaian banks.

2.3. Institutional Theory: The Decoupling Phenomenon

Institutional Theory offers a valuable lens for understanding why governance mechanisms sometimes fail to produce the expected results. In developing economies, organisations frequently adopt new structures and practices not for internal efficiency but to gain legitimacy. They respond to coercive, mimetic, or normative pressures from regulators, peers, or professional norms (Eitrem, Meidell & Modell, 2024). This adoption often leads to decoupling. Formal policies and structures become separated from day-to-day operational behaviour (Galleli & Amaral, 2025). Recent research shows that in highly compliance-driven settings, governance reforms tend to create symbolic conformity rather than real behavioural change (Balzano et al., 2024; Busco, Granà & Izzo, 2023). Building on this insight, the present study introduces the concept of governance–risk decoupling. We define it as a situation in which the formal presence of independent boards remains isolated from actual operational risk processes. When such decoupling exists, the empirical sign would be a weak or even negative interaction between board independence (BI) and operational risk management (ORM). Risk Governance Theory expects a positive synergy between the two. Institutional Theory, however, suggests a different outcome. Procedural independence may create informational friction and slow decision-making. These effects can reduce, rather than strengthen, the positive impact of ORM on resilience. We therefore propose a third hypothesis:

H₃: Board independence moderates the relationship between operational risk management and operational resilience of Ghanaian banks.

2.4. Synthesized Framework and Hypotheses

We integrate the three theoretical perspectives as follows. The Resource-Based View (RBV) positions operational risk management (ORM) as a core internal strategic resource (Kero & Bogale, 2023; Dhruvo et al., 2024). Risk Governance Theory casts board independence (BI) as the governance mechanism designed to guide and protect that resource (Addae, Mota & Moreira, 2023; Anton, Baba & Bucoiu, 2025). Institutional Theory, in turn, highlights the contextual forces that determine whether the two elements truly connect or remain separate (Galleli & Amaral, 2025; Eitrem, Meidell & Modell, 2024). In our model, board independence serves both as a direct predictor of operational resilience and as a moderator of the ORM–resilience relationship. This dual role allows a fine-grained test of Ghana’s post-crisis banking sector. We can establish whether the sector displays genuine risk–governance synergy or the governance–risk decoupling we have described.

Testing these hypotheses advances theory in three specific ways. First, it extends Risk Governance Theory by incorporating institutional contingencies. These contingencies explain why similar governance arrangements produce different resilience outcomes across countries and contexts. Second, it refines the Resource-Based View. It shows that the strategic value of ORM is not automatic. The value depends on real integration with effective governance oversight. Third, it strengthens Institutional Theory. It provides the first large-scale empirical evidence of the performance costs that arise from decoupling. Together, these contributions produce a

richer, more nuanced understanding of risk governance in emerging financial systems. The multidimensional framework offers both a conceptual and an empirical base for future comparative research on operational resilience.

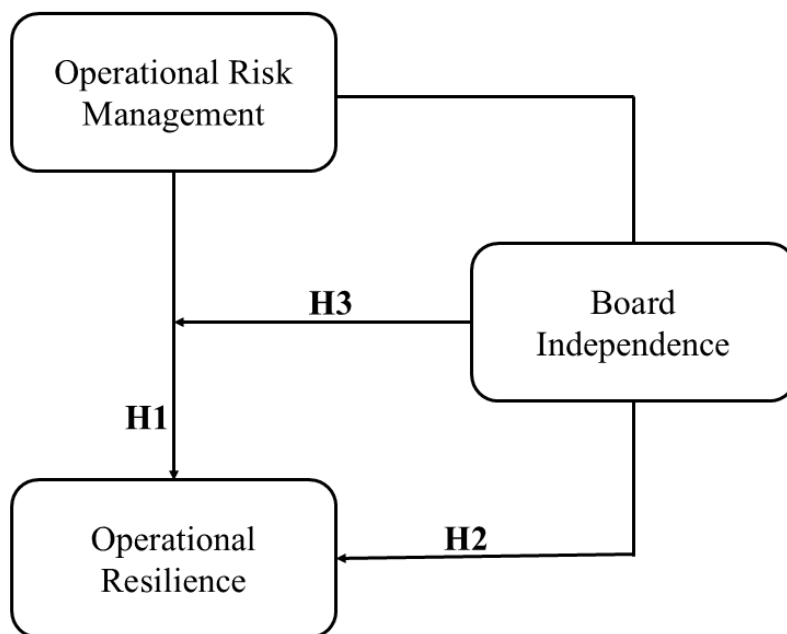


Figure 1. Research Model: Operational Risk Management, Board Independence, and Operational Resilience.

3. Methods

3.1. Study One: Qualitative Phase

3.2.1. Research Approach

This study employed an exploratory sequential mixed-methods design. The approach is rooted in a post-positivist paradigm (Musa & Aldiabat, 2024). We chose this design because it skilfully combines inductive and deductive reasoning. Qualitative exploration comes first. It then directly shapes the later quantitative stage (Sim et al., 2024). We began with a qualitative phase to build a deep, context-specific understanding of Operational Risk Management (ORM) and Board Independence (BI) in Ghana’s banking sector. In-depth interviews revealed managerial views and institutional realities that standard surveys often miss. We uncovered critical issues such as information asymmetry, regulatory pressures, and cultural influences on the governance–risk relationship. These rich insights directly informed the design of the quantitative survey. Items became more relevant and theoretically grounded. This sequential process provided important methodological triangulation. It strengthened internal validity. It also improved causal inference by identifying and controlling for contextual factors (Taheri & Okumus, 2023). The result is a robust, Ghana-sensitive research model that blends qualitative depth with quantitative precision.

3.2.2. Data Collection

We collected qualitative data through semi-structured interviews. Ten senior professionals were interviewed. All participants came from the 23 licensed commercial banks in Ghana. They held key positions in risk governance and operations. The group included Chief Risk Officers, internal auditors, and independent board members. We used purposive sampling to select information-rich respondents. We made sure the sample covered banks of different sizes and ownership types. Interviews took place via telephone call because of logistical limits. Each interview lasted 40 to 60 minutes. All participants gave informed consent. Every session of the interview was recorded, and the recordings were transcribed word for word. We kept interviewing until we reached theoretical saturation. Saturation occurred when new interviews no longer added fresh conceptual insights (Wurz et al., 2023). Saturation was monitored by tracking the emergence of new codes across consecutive interviews; primary thematic categories became well-defined by the seventh interview, with no substantive new insights emerging in the final three sessions. To ensure the credibility of the findings, a peer-debriefing procedure was employed where an independent researcher reviewed the transcript extracts to validate the final theme set against the raw data.

3.2.3. Interview Guide Development

We built the semi-structured interview guide around the study's three theoretical foundations. These are Risk Governance Theory, the Resource-Based View (RBV), and Institutional Theory. Prior studies gave us additional guidance (Alonso et al., 2025; Amin et al., 2024). The guide contained ten open-ended questions. We grouped them into two main themes: (1) Operational Risk Management Practices and (2) Board Independence and Oversight. The questions explored real experiences. Participants described risk identification, governance oversight, decision autonomy, and resilience-building practices. We paid special attention to problems of information flow and resource availability. Two experts in banking governance reviewed the guide. Their feedback confirmed content and face validity. We then ran a pilot test with one senior banker. Small wording changes followed. These changes improved clarity and fit with the Ghanaian context (see Appendix A).

3.2.4. Data Analysis

The qualitative data were analysed with Braun and Clarke's (2006) six-step thematic analysis framework. The process started with familiarisation. We read the transcripts many times. Next, we applied systematic open coding. We then grouped similar codes into preliminary themes. Through several rounds of review, we refined these into clear final themes. NVivo 14 software helped us organise the data. It also ensured consistent coding. To strengthen trustworthiness, we used peer debriefing. We also conducted intercoder reliability checks. Final themes were compared with existing literature. This triangulation confirmed theoretical coherence and empirical grounding. The resulting conceptual patterns directly shaped the quantitative phase. They guided item development. They also informed us of the precise specification of constructs. This close link between qualitative insights and survey design added depth and contextual relevance to the later statistical tests.

3.2. Study two: Quantitative phase

3.2.1. Research Population And Sampling Strategy

The quantitative phase focused on professionals who work in risk governance and operational decision-making within the Ghanaian banking sector. While an exact, documented number of this specific professional group across all banks is not precisely known, we considered the target population to be indefinite, yet substantial, encompassing board members, Chief Risk Officers, operational heads, and specialized risk officers across all 23 licensed commercial banks in Ghana. We used stratified random sampling to ensure good representation across bank size (measured by total assets) and job function, thereby reducing selection bias and giving every segment of the population a fair chance to be included. The required sample size was calculated using Krejcie and Morgan's (1970) formula for an unknown population, which is appropriate when the exact population size is not definitively established:

$$n = \frac{\chi^2 \cdot P \cdot (1-P)}{d^2}$$

Where: n = required sample size, χ^2 = chi-square value for 1 degree of freedom at 95% confidence level (3.841), P = population proportion (assumed to be 0.50 for maximum variability) and d = margin of error (0.05).

Substituting these values:

$$n = \frac{3.841 \cdot 0.5 \cdot (1-0.5)}{0.05^2}$$

$$n \approx 384.1$$

This calculation yielded a minimum sample size of 384. To reach the respondents, we first obtained official permission from the management of each of the 23 licensed commercial banks. Following approval, we collaborated with Human Resources departments and internal contacts to distribute the electronic survey link directly to eligible professionals via their official work emails. We also utilized professional networks and industry associations to disseminate the survey, ensuring a broad reach within the target professional groups. Regular follow-up reminders were sent to encourage participation. A total of 384 valid responses were obtained, meeting this threshold and satisfying Kline's (2016) guideline of 10–20 cases per estimated parameter for Structural Equation Modeling (SEM). This ensured adequate statistical power for hypothesis testing.

3.2.2. Survey Instrument Development And Validation

The survey instrument was developed through a two-stage process integrating theory and contextual insight. First, we turned the themes from the qualitative interviews into measurable items. This step kept the questions firmly rooted in Ghana's local realities, such as governance culture and regulatory compliance patterns. Second, we aligned these context-specific items with established, validated scales from the literature on operational risk management (ORM) and board governance (Garefalakis et al., 2025; Silva et al., 2025). The final questionnaire contained 19 items. All used a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The items measured three latent constructs: Operational Risk Management (7 items), Board Independence (7 items), and Operational Resilience (5 items). We conducted a pilot test with 25 banking professionals. Their feedback confirmed that the items were clear,

reliable, and relevant to the Ghanaian context. Minor adjustments based on their comments were made, and the refined instrument was then administered electronically to the full sample.

3.2.3. Advanced Analytical Framework And Data Analysis

Statistical analyses were performed using SPSS for preliminary data screening and JASP (Version 0.16.4) for the primary analyses, specifically Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The analyses followed a covariance-based structural equation modeling (SEM) framework. We chose this approach because it allows the simultaneous testing of multiple structural relationships, including direct and interaction effects, while properly accounting for measurement error (Appiah-Kubi et al., 2025; Unegbu et al., 2025). The latent interaction term (ORM \times BI) was operationalized using the product-indicator approach, where cross-products of the manifest indicators were created to represent the interaction at the latent level. To mitigate potential multicollinearity and ensure the stability of the structural estimates, all indicators were mean-centered before the construction of the interaction term, a procedure consistent with established latent interaction modeling protocols (Marsh et al., 2004). This combination of software and method provided a rigorous and reliable way to examine both the measurement model and the hypothesized paths among Operational Risk Management, Board Independence, and Operational Resilience.

3.3. Preliminary And Validation Analyses

Descriptive statistics showed that the data met univariate normality assumptions, with skewness and kurtosis values falling within the acceptable range of ± 2 . We conducted an Exploratory Factor Analysis (EFA) using Principal Axis Factoring with Varimax rotation to examine the initial factor structure. The Kaiser-Meyer-Olkin (KMO) measure was 0.929, and Bartlett's Test of Sphericity was significant ($\chi^2(171) = 4082.384$, $p < 0.001$), confirming the data's suitability for factor analysis. The analysis extracted two factors with eigenvalues greater than 1, which together explained 52.67% of the total variance. As shown in Table 4, all items for Operational Risk Management and Operational Resilience loaded highly on a single factor, while all items for Board Independence loaded on a distinct second factor. This initial pattern suggests that, empirically, bank professionals perceive strong operational risk management and operational resilience as a unified capability. However, to test our theoretical model, which posits a causal relationship between ORM (the capability) and OR (the outcome), we validated the three-factor structure using Confirmatory Factor Analysis.

3.4. Confirmatory Factor Analysis (CFA) For Measurement Model Rigor

We next tested the measurement model with Confirmatory Factor Analysis (CFA) using JASP. The three-factor model demonstrated good fit to the data. Key indices were $\chi^2/df = 2.951$, CFI = 0.927, RMSEA = 0.071, and SRMR = 0.062. All standardized factor loadings were statistically significant ($p < 0.001$), with each loading exceeding 0.550. These results confirmed solid item reliability and convergent validity. To assess discriminant validity, we examined the Heterotrait-Monotrait (HTMT) ratio of correlations. The HTMT values between Board Independence and the other constructs

were well below the 0.850 threshold (ORM-BI = 0.141; BI-OR = 0.330). However, the HTMT between Operational Risk Management and Operational Resilience was 0.943, exceeding the threshold. This indicates a lack of full discriminant validity between ORM and OR, which is consistent with the initial EFA results and reflects their very strong theoretical and empirical relationship. Despite this, the three-factor model was retained for hypothesis testing due to its strong theoretical foundation, good model fit, and significant factor loadings, all of which support its use in the structural model (See Figure 2).

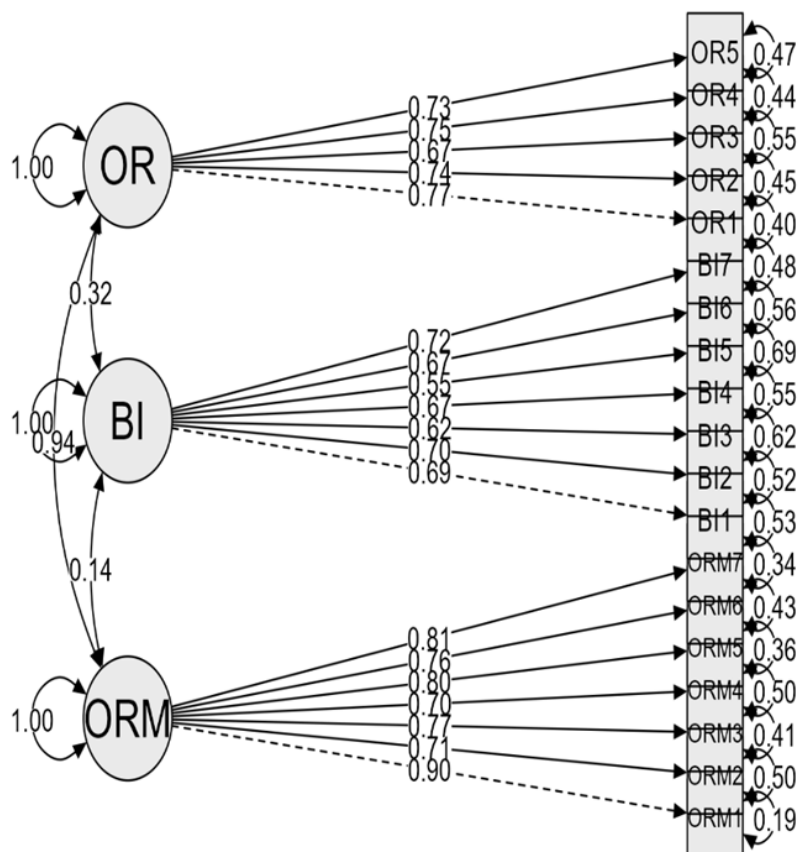


Figure 2. Confirmatory Factor Analysis (CFA) Measurement Model

3.5. Structural Equation Modeling (SEM) for Hypothesis Testing (Direct and Interaction Effects)

We proceeded to test the hypotheses (H₁, H₂, and H₃) using structural equation modeling (SEM) in JASP. Crucially, the interaction term between Operational Risk Management (ORM) and Board Independence (BI) was directly integrated into the SEM path diagram to test H₃, rather than performing a separate moderation analysis. The structural model, including this interaction, exhibited good fit with the data. The key fit indices were $\chi^2/df = 2.840$, CFI = 0.924, and RMSEA = 0.069. These values meet or exceed conventional standards for acceptable model fit. The standardized path coefficients strongly supported both direct hypotheses (H₁ and H₂), and the interaction effect (H₃) was also assessed within this integrated model. Operational risk management (ORM) showed a powerful positive effect on operational resilience. Board independence (BI) displayed a significant but smaller positive effect. The model explained a substantial portion of

variance in operational resilience. These results confirm the expected direct and interaction relationships (See Figure 3).

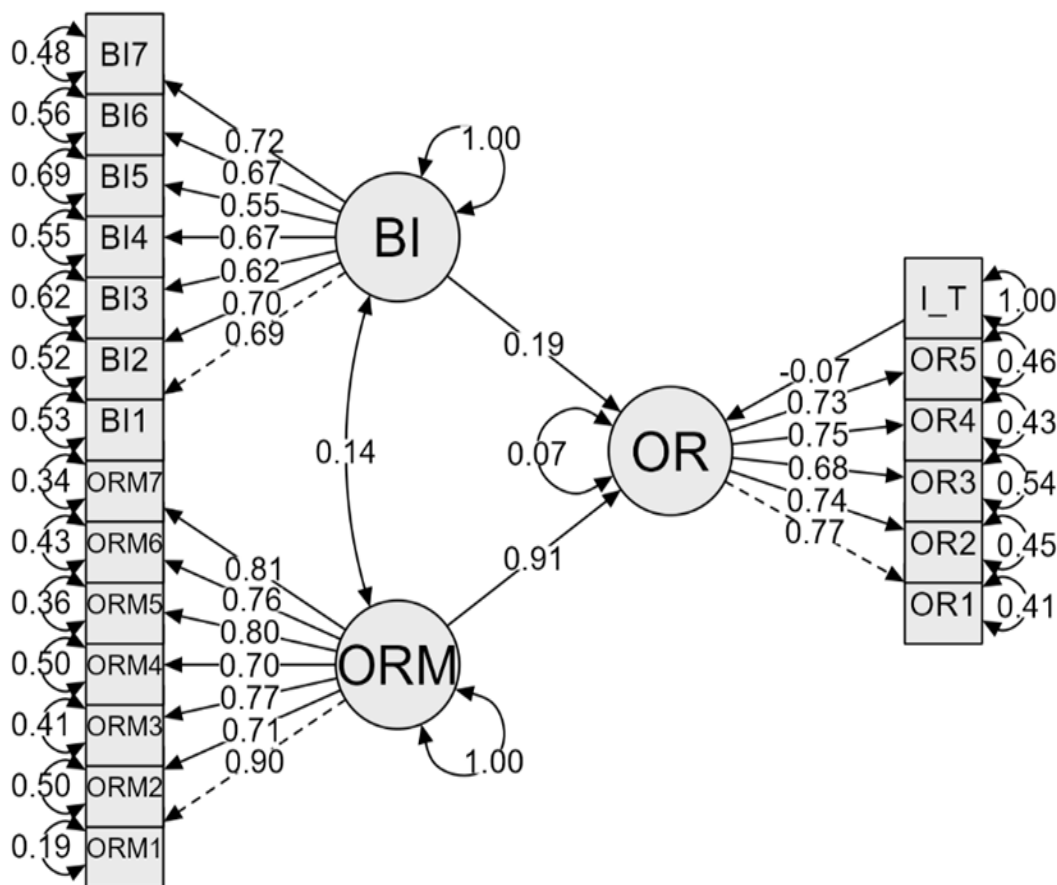


Figure 3. Structural Equation Model (SEM) Path Diagram

3.6. Robustness Checks

To ensure the findings were robust, we carried out additional checks using standard multiple regression. The results stayed highly consistent with the SEM estimates. All key coefficients kept the same direction, significance, and similar magnitude. We also examined multicollinearity. Variance Inflation Factors (VIF) for all predictors were below 1.02. This very low value shows no multicollinearity problems. The stability of coefficients across methods and the absence of collinearity concerns confirm that our results are reliable and not driven by statistical artifacts. These checks strengthen confidence in the overall pattern: a dominant role for operational risk management (ORM), a modest direct effect of board independence (BI), and a small but theoretically important negative interaction that signals governance–risk decoupling (See Table 8).

4. Results and Discussion

4.1. Qualitative Study Results

Thematic analysis of the ten interviews yielded deep insights into how senior managers and board members experience Operational Risk Management (ORM) and Board Independence (BI) in Ghanaian banks. A clear pattern emerged. A persistent gap exists between formal structures and real integration of governance and risk practices. Participants described ORM systems as mature and well-structured. These systems follow Basel II/III principles and Bank of Ghana guidelines. Most banks organise them around the classic “three lines of defence” model. Common tools include control self-assessments, incident reporting databases, and regular internal audits. Managers stressed that ORM is no longer a static compliance exercise. It has become a continuous learning process. Real-time dashboards and periodic risk reviews support this shift. Adaptive learning is evident. After major incidents, banks typically introduce targeted training and update policies. These practices confirm that ORM functions as a dynamic, learning-based capability deeply embedded in daily operations.

The picture for Board Independence was markedly different. Respondents agreed that independent directors improve objectivity and reduce groupthink. Yet structural barriers limit their impact. Independent members often lack timely access to detailed operational data. Resource constraints and occasional conflicts of interest further weaken their role. As a result, they rarely challenge management decisions in a substantive way. Board oversight, therefore, remains largely procedural and compliance-focused. Taken together, these findings offer the first qualitative evidence of governance–risk decoupling in the Ghanaian context. ORM practices are firmly rooted in operational reality. Board independence, by contrast, is institutionalised more in form than in substance. Independent directors meet regulatory requirements but stay detached from core risk processes. This qualitative phase thus clarified the mechanisms behind decoupling. The insights directly shaped the quantitative survey items and guided the interpretation of later statistical results.

Table 1. Key Themes from Qualitative Interviews on Operational Risk Management and Board Independence

Variables	Theme	Key Insight	Representative Quote
Operational Risk Management	Risk Management Frameworks	Banks pursue systematic designs in conformity with Basel II/III and BoG requirements by adopting the three-lines-of-defense construct.	"Our bank utilizes a three-lines-of-defense operational risk management framework." – Chief Risk Officer
	Risk Identification	The identification of risks occurs in several channels, and this includes assessment, incident reporting, and internal audits.	"Risks are mapped using control self-assessments and workshops." – Independent Board Member

	Risk Assessment and Mitigation	Bank mitigates risk with risk matrices, internal control, and insurable risk, and mitigates through training.	"Assessment is done using a risk matrix; mitigation includes staff training and insurance." – Risk Manager
	Monitoring and Reporting	Ongoing monitoring is backed up with dashboards, audits, and oversight committees.	"Monitoring is achieved through real-time dashboards and quarterly reviews." – Head of Operations
	Organizational Learning	Reviews and training, and policy updates after the incident guarantee that lessons remain.	"Lessons are shared bank-wide after significant incidents." – Chief Audit Executive
Board Independence	Role of Independent Directors	Independent directors make sure that there is monitoring and criticize management's assumptions.	"Independent directors hold management accountable and ensure transparency." Chairman of the Board (Independent Director)
	Contribution to Resilience	Independence on the board also prevents or eliminates groupthink and enhances risk culture.	"Their independence helps prevent groupthink and enhances resilience." Board Member
	Governance Mechanisms	The effective oversight is facilitated by risk committees, board charters, as well as independent reviews.	"We have regular committee meetings and annual evaluations." Board member (Non-Executive)
	Challenges to Independence	Board effectiveness is impacted by conflict of interest, time constraints, and a deficiency of information.	"Independence can be limited by conflicts of interest or lack of timely information." Independent Board Member

Source: Authors' own work (2025)

4.2. Quantitative Study Results

We received 384 fully completed and valid questionnaires. Responses came from professionals in all 23 licensed commercial banks in Ghana. This coverage gives a complete representation of the sector.

4.2.1. Demographic Analysis

The respondent profile is strong. Ninety-six percent hold at least a bachelor's degree. Seventy-eight percent have more than six years of professional experience. Risk officers make up 36.5% of the sample. Senior managers account for 26.0%. These

respondents work directly with risk governance every day. Their knowledge adds clear credibility to the results. Preliminary screening showed the data were suitable for multivariate analysis.

Table 2. Demographic Analysis (N = 384)

Demographic Category	Frequency	Percent
Gender		
Female	149	38.8
Male	235	61.2
Age		
20-29	32	8.3
30-39	150	39.1
40-49	134	34.9
50+	68	17.7
Highest Qualification		
Bachelor's	177	46.1
Diploma	4	1.0
Doctorate	11	2.9
Master's	192	50.0
Position		
Board Member	60	15.6
Other staff	84	21.9
Risk Officer	140	36.5
Senior Manager	100	26
Years of Experience		
Below 3	9	2.3
3-5	75	19.5
6-10	156	40.6
Above 10	144	37.5

Source: Authors' own work (2025)

4.2.2. Descriptive Statistics

Descriptive statistics indicate moderately positive perceptions across the three constructs. Operational Resilience recorded a mean of 3.626 (SD = 0.860). Operational Risk Management scored 3.455 (SD = 0.920). Board Independence reached 3.345 (SD = 0.800). Reliability was excellent. Cronbach's alpha and Composite Reliability (CR) values for all constructs exceeded 0.840. This confirms strong internal consistency. Normality checks were satisfied. We could therefore confidently apply maximum likelihood estimation in the structural equation modelling (SEM) analysis.

Table 3. Descriptive Statistics, Normality, Correlations, and Reliability (N = 384)

Variable (1-3)	Mean	SD	Skewness	Kurtosis	1	2	3	α
1. Operational Risk Management	3.455	0.920	-0.314	-1.089	1.00			0.916

2. Board Independence	3.345	0.800	0.048	-1.115	0.127*	1.00	0.842
3. Operational Resilience	3.626	0.860	-0.197	-1.093	0.833**	0.277**	1.00 0.853

Notes. $N = 384$. Correlations are Pearson coefficients calculated using composite (mean) scores. The correlation between Operational Risk Management and Operational Resilience ($r = 0.833$) represents the observed relationship; the higher latent correlation ($r = 0.940$) reported in the SEM results (Table 6) accounts for measurement error. Significance: $p < 0.05$ (*), $*p < 0.01$ (**). Cronbach’s alpha (α) reported in the rightmost column. Skewness and kurtosis values indicate approximate univariate normality (absolute skewness < 2 and kurtosis < 7 ; Kline, 2016). All constructs were measured on a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree).

Source: Authors’ own work (2025)

4.2.3. Measurement model and validation

The measurement model was validated in two stages.

First, we ran Exploratory Factor Analysis (EFA) with Principal Axis Factoring. The results produced a clean factor structure. The Kaiser-Meyer-Olkin value was 0.929. Bartlett’s Test of Sphericity was highly significant ($\chi^2(171) = 4082.384, p < 0.001$). The extracted factors explained 52.67% of the total variance. Every item loaded strongly on its intended factor (all loadings > 0.54).

Table 4. Exploratory Factor Analysis Results: Rotated Factor Matrix and Communalities

Item	Factor 1: Operational Risk Management and Resilience	Factor 2: Board Independence	Communality (Extraction)
ORM1	0.893		0.798
ORM2	0.716		0.515
ORM3	0.750		0.567
ORM4	0.706		0.498
ORM7	0.811		0.658
ORM5	0.782		0.613
ORM6	0.763		0.585
OR1	0.771		0.594
OR2	0.714		0.543
OR3	0.628		0.445
OR4	0.699		0.551
OR5	0.681		0.501
BI1		0.737	0.567
BI2		0.684	0.474
BI3		0.620	0.385
BI4		0.648	0.444
BI5		0.540	0.302
BI6		0.646	0.435
BI7		0.711	0.531

Extraction Method: Principal Axis Factoring. *Rotation Method:* Varimax with Kaiser Normalization. $n = 384$. **Tests of Sampling Adequacy:** KMO = 0.929; Bartlett’s Test of Sphericity $\chi^2(171) = 4082.384, p < 0.001$. **Variance Explained (Rotation Sums of Squared Loadings):** Factor 1 = 35.69%; Factor 2 = 16.98%; **Total = 52.67%**.

Note. Loadings < 0.40 are suppressed for clarity. Extraction converged in three iterations.

Source: Authors’ own work (2025)

Table 5. Factor Labeling and Reliability Statistics

Construct / Factor	Observed Items	No. of Items	Cronbach’s α	Composite Reliability (CR)	Average Variance Extracted (AVE)
Factor 1: Operational Risk Management and Resilience	ORM1, ORM2, ORM3, ORM4, ORM5, ORM6, ORM7, OR1, OR2, OR3, OR4, OR5	12	0.930	0.940	0.560
Factor 2: Board Independence (BI)	BI1, BI2, BI3, BI4, BI5, BI6, BI7	7	0.880	0.900	0.540

Note. Cronbach’s α and CR values exceed the 0.700 threshold, indicating good internal consistency. Average Variance Extracted (AVE) values are above 0.500, demonstrating adequate convergent validity. Reliability statistics are computed from the factor loadings obtained in the EFA (see Table 4).

Source: Authors’ own work (2025)

We then conducted Confirmatory Factor Analysis (CFA) to test the three-factor model. The model showed acceptable fit: $\chi^2/df = 2.951$, CFI = 0.927, RMSEA = 0.071, and SRMR = 0.062. All standardized factor loadings were significant ($p < 0.001$) and ranged from 0.553 to 0.903. These results confirm strong convergent validity. Discriminant validity was supported as all HTMT ratios were below the conservative threshold of 0.85, except for ORM–OR (HTMT = 0.943). While this high value reflects the close conceptual and empirical overlap between operational risk management practices and the resulting operational resilience, the constructs are retained as distinct factors based on theoretical requirements. A unified methodological justification for this decision, addressing the HTMT threshold and construct distinctiveness, is provided in the Limitations and future research section. The other ratios were well below this threshold (ORM–BI = 0.141; BI–OR = 0.330). The measurement instruments are therefore sound and ready for structural testing.

Table 6. Confirmatory Factor Analysis Results: Standardized Factor Loadings, Reliability, and Validity Measures

Construct	Item	Standardized Factor Loading (λ)	Critical Ratio (CR)	Item Reliability (R^2)
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Operational Risk Management (CR = 0.917; AVE = 0.619)

ORM1	0.900	74.881	0.810
ORM2	0.709	26.195	0.503
ORM3	0.767	33.668	0.588
ORM4	0.704	25.687	0.496
ORM5	0.800	39.689	0.641
ORM6	0.756	32.063	0.572
ORM7	0.813	42.483	0.661

Board Independence (CR = 0.845; AVE = 0.439)

BI1	0.686	21.183	0.470
BI2	0.696	21.903	0.484
BI3	0.616	16.833	0.448
BI4	0.669	20.017	0.447
BI5	0.553	13.762	0.306
BI6	0.666	19.818	0.444
BI7	0.721	23.944	0.520

Operational Resilience (CR = 0.855; AVE = 0.542)

OR1	0.772	33.062	0.596
OR2	0.742	29.044	0.550
OR3	0.674	22.242	0.454
OR4	0.749	29.875	0.560
OR5	0.730	27.654	0.533

Note. CFA conducted using maximum likelihood estimation in JASP ($N = 384$). All factor loadings are significant at $p < .001$. Model fit: $\chi^2(147) = 439.638, p < .001; \chi^2/df = 2.951; CFI = .927; TLI = .917; NFI = .895; RMSEA = .071$ (90% CI [0.064, 0.079]); SRMR = 0.062. CR = composite reliability; AVE = average variance extracted. Inter-construct correlations: Operational Risk Management ↔ Board Independence = 0.143; Board Independence ↔ Operational Resilience = .316; Operational Risk Management ↔ Operational Resilience = 0.940. Discriminant validity is supported via Heterotrait-Monotrait (HTMT) ratios: 0.141 (Operational Risk Management - Board Independence), 0.330 (Board Independence - Operational Resilience), 0.943 (Operational Risk Management - Operational Resilience). While the HTMT between Operational Risk Management and Operational Resilience exceeds 0.850, suggesting potential overlap, the constructs are retained as theoretically distinct (Henseler et al., 2015).

Source: Authors' own work (2025)

4.2.4. Hypothesis Testing: Structural Relationships

The structural equation model (SEM) showed a good fit to the data. Key indices were $\chi^2/df = 2.840, CFI = 0.924,$ and $RMSEA = 0.069$. These values meet accepted standards. The model strongly tested our direct hypotheses. The results reveal a clear order of importance. Hypothesis 1 (H_1) received very strong support. Operational Risk Management (ORM) had a dominant positive effect on Operational Resilience ($\beta =$

0.914, $p < 0.001$). Hypothesis 2 (H_2) was also supported. Yet Board Independence (BI) showed only a modest positive effect ($\beta = 0.191$, $p < 0.001$). Together, the two predictors explained 92.6% of the variance in Operational Resilience ($R^2 = 0.926$). This remarkably high R^2 is partly a function of the empirical proximity of ORM and resilience as perceived by banking professionals, a finding consistent with the EFA and HTMT results, rather than evidence of model misspecification. Furthermore, a robustness check using multiple regression yielded an R^2 of 0.724, providing a more conservative estimate of explained variance that reinforces the pattern of results without the full SEM framework.

Bivariate correlations tell the same story clearly. The correlation between ORM and Resilience was very high ($r = 0.940$, $p < 0.01$). The correlation between Board Independence and Resilience was much weaker ($r = 0.316$, $p < 0.01$). Most telling was the low correlation between ORM and BI themselves ($r = 0.143$, $p < 0.05$). This small link offers early quantitative evidence of governance–risk decoupling. Formal board structures and day-to-day risk management systems appear to operate in separate spheres. We acknowledge that common method variance (CMV) is a potential concern in a self-reported single-wave survey design; however, this risk is partially mitigated by the exploratory sequential mixed-methods design and the results of Harman’s single-factor test, which indicated no single factor accounted for the majority of the variance.

Table 7. Structural Model Path Estimates and Explained Variance

Hypothesized Path	Standardized Estimate (β)	Standardized Error	z-value	p-value	95% CI Lower	95% CI Upper
Direct Effects						
H ₁ : Operational Risk Management → Operational Resilience	0.914	0.018	51.348	< 0.001	0.879	0.949
H ₂ : Board Independence → Operational Resilience	0.191	0.032	5.999	< 0.001	0.129	0.254
Moderation Effects						
Interaction Term (Operational Risk Management x Board Independence) → Operational Resilience	-0.065	0.028	-2.310	0.021	-0.121	-0.010

Correlation of Exogenous Constructs							
Operational Risk Management ↔ Board Independence		0.143	0.057	2.528	0.011	0.032	0.254

Note. SEM analysis conducted using maximum likelihood estimation in JASP (N = 384). All path coefficients are significant at $p < 0.05$ or better. The squared multiple correlation (R^2) for the endogenous construct, Operational Resilience, is 0.926, indicating that the model explains 92.6% of its variance. The measurement model results, including factor loadings, reliability, and convergent validity, are reported in Table 6. Model fit indices for the full structural model: $\chi^2(167) = 474.342$, $p < 0.001$; $\chi^2/df = 2.840$; CFI = 0.924; TLI = 0.913; NFI = 0.887; RMSEA = 0.069 (90% CI [0.062, 0.077]); SRMR = 0.066. Discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio (Henseler et al., 2015): HTMT values are 0.141 (Operational Risk Management - Board Independence), 0.330 (Board Independence - Operational Resilience), and 0.943 (Operational Risk Management - Operational Resilience). While the HTMT between Operational Risk Management and Operational Resilience suggests potential overlap, the constructs remain theoretically distinct.

Source: Authors' own work (2025)

4.2.5. Testing The Interaction Effect (H_3)

Hypothesis 3 (H_3) predicted a significant interaction between Operational Risk Management (ORM) and Board Independence (BI) on Operational Resilience. This interaction was tested directly within the structural equation model. The results showed a statistically significant negative interaction term ($\beta = -0.065$, $p = 0.021$), as presented in Table 7. This indicates that the strong positive effect of ORM on Operational Resilience becomes slightly weaker when Board Independence is high. To further elucidate this pattern, conditional effect tests were examined. While the ORM–Resilience relationship remains positive and highly significant across all levels of BI, the effect is strongest when BI is low (e.g., an effect of 0.979, $p < 0.001$) and slightly smaller when BI is high (e.g., an effect of 0.849, $p < 0.001$). In the Ghanaian banking context, greater formal board independence appears to introduce procedural complexity or informational barriers. These factors subtly reduce, rather than strengthen, the contribution of operational risk systems. Hypothesis 3 is therefore supported, with the interaction effect being negative. This finding supplies strong quantitative evidence for the governance–risk decoupling phenomenon we theorized, showing that independent boards can, under certain institutional conditions, unintentionally hinder the full effectiveness of core risk management practices.

4.2.6. Robustness Checks

To ensure the robustness of the findings, we carried out additional checks using standard multiple regression. This test used the same variables outside the full SEM framework. The results remained highly consistent. Operational Risk Management (ORM) remained a very strong predictor ($\beta = 0.811$, $p < 0.001$). Board Independence (BI) kept its significant but smaller effect ($\beta = 0.175$, $p < 0.001$). Together, the two variables explained 72.4% of the variance in Operational Resilience. The overall model was highly significant ($F(2, 381) = 499.738$, $p < 0.001$). Variance Inflation Factors

(VIF) were very low (all 1.016). This confirms no multicollinearity issues. The stability of findings across different analytical methods strengthens confidence in the core results: ORM is the dominant driver of resilience, BI plays a modest direct role, and the overall pattern is robust and reliable.

Table 8. Robustness Check - Multiple Regression Results (Direct Effects Only)

Predictor		B	SE	β	t	p	VIF
Constant		0.378	0.125	—	3.021	0.003	—
Operational Management	Risk	0.757	0.025	0.811	29.886	<0.001	1.016
Board Independence		0.189	0.029	0.175	6.441	<0.001	1.016

Note. N = 384. B = unstandardized coefficient; SE = standard error; β = standardized coefficient; VIF = Variance Inflation Factor. This model confirms the stability and significance of the direct effects outside the full SEM framework, aligning with JASP SEM results (excluding interaction for comparison). Model Summary: R^2 / Adjusted R^2 = 0.724 / 0.723; F-statistic = $F(2, 381) = 499.738$, $p < 0.001$. Collinearity diagnostics (all VIFs < 10, Condition Indices < 30) indicate no multicollinearity concerns.

Source: Authors' own work (2025)

4.3. Discussion

The findings paint a nuanced picture of operational resilience in Ghanaian banking, both confirming and challenging existing theory. The journey from qualitative interviews to structural equation modeling tells a clear story, revealing a new mechanism that helps explain why governance reforms often fail to deliver expected resilience in emerging markets.

Operational Risk Management (ORM) emerges as the dominant driver of operational resilience. The strong positive relationship between ORM and operational resilience, coupled with the EFA and discriminant validity results, strongly suggests that in the practical context of Ghanaian banks, operational resilience is perceived as the direct manifestation of deeply embedded operational risk management capabilities, making the two difficult to separate empirically. This finding powerfully confirms the Resource-Based View (RBV): ORM is not a routine compliance task but a strategic, knowledge-based capability that is valuable, rare, and difficult to imitate (Kero & Bogale, 2023; Dhruvo et al., 2024). Qualitative interviews enrich this picture, with managers describing mature ORM systems built on real-time monitoring, systematic incident reporting, and strong post-event learning loops (Oko-Odion & Angela, 2025). After shocks, banks quickly update policies and train staff. This learning culture turns ORM into a dynamic capability that drives adaptation and survival (Zungu, Laryea & Nkado, 2025; Georgescu et al., 2024). In Ghana's volatile environment, this internal operational strength matters far more than any external governance template.

Board Independence (BI) shows a different pattern. It has a positive and significant direct effect, offering partial support for Risk Governance Theory. The theory argues that independent directors bring objectivity and embed risk oversight into strategy (Addae, Mota & Moreira, 2023; Anton, Baba & Bucşoiu, 2025). Independent directors should

strengthen prudent risk appetite and reduce managerial entrenchment (Handoyo, 2024; Amin et al., 2024). Yet the effect size is modest. Qualitative evidence explains why: independent directors often receive filtered reports, lack direct access to granular data, and many also lack deep technical risk expertise (Crocì et al., 2023; Wu & Wang, 2023). Formal independence exists, but substantive influence does not. Information asymmetry and resource limits keep oversight largely ceremonial (Musallam, 2024; Adu, 2024; Nazliben, Renneboog & Uduwalage, 2023). Ghana's post-2018 reforms successfully created independent seats on boards, but they have been far less successful in creating the transparent information flows and risk culture that would let those directors add real value.

The most striking finding is the significant negative interaction between BI and ORM. At higher levels of board independence, the strong positive effect of ORM on resilience becomes slightly weaker. This counterintuitive result directly supports Institutional Theory. Organizations in emerging markets often adopt structures for legitimacy rather than efficiency (Eitrem, Meidell & Modell, 2024), leading to formal policies becoming decoupled from daily practice (Galleli & Amaral, 2025). In Ghana, independent directors meet regulatory requirements, yet their involvement sometimes adds procedural steps and delays. This subtly slows the agile response that mature ORM systems enable (Balzano et al., 2024).

The very low correlation between ORM and BI scores ($r = 0.143$) confirms they operate in separate silos, providing the quantitative signature of governance–risk decoupling. These results contrast with evidence from mature markets, such as Europe and China, where skilled independent directors clearly improve risk oversight and flexibility (Crocì et al., 2023; Wu & Wang, 2023). Those contexts enjoy stronger enforcement, better data systems, and higher director competence. Ghana lacks these supporting conditions, and importing board independence without them produces symbolic rather than functional governance (Khan et al., 2022). The negative interaction term demonstrates that decoupling is not harmless; it carries measurable costs, even if small.

Together, the three theoretical lenses form a coherent explanation. The RBV correctly identifies ORM as the core capability (Kero & Bogale, 2023). Risk Governance Theory rightly expects BI to strengthen oversight, but only when institutional conditions allow real integration (Handoyo, 2024). Institutional Theory reveals why that integration often fails in emerging markets. The negative moderation effect ties everything together, proving that ceremonial adoption can slightly reduce the strategic return on a valuable capability.

This paper, therefore, makes three linked theoretical advances. First, it extends Risk Governance Theory by showing that board independence is contingent on institutional enablers (Addae, Mota & Moreira, 2023). Second, it refines the RBV by proving that even strong capabilities need substantive, not just formal, governance support to reach full potential (Dhrubo et al., 2024). Third, it moves Institutional Theory forward by quantifying the performance cost of decoupling (Galleli & Amaral, 2025). In the end, operational resilience in Ghanaian banks rests first and foremost on deep, learning-oriented ORM practices. Board independence can help, but only when it moves from form to substance. Without that shift, governance–risk decoupling persists, and resilience remains fragile despite the appearance of modern governance structures. This nuanced understanding

explains why many emerging-market reforms improve optics more than outcomes, and it lights the path toward more effective risk governance in transitional financial systems.

5. Conclusion

This study investigated the drivers of operational resilience in Ghanaian commercial banks through an exploratory sequential mixed-methods design. The combined evidence from in-depth interviews and large-scale structural equation modelling reveals a clear and consistent pattern. Operational resilience in this emerging-market context does not flow automatically from imported governance templates. Instead, it follows a distinct hierarchy. Robust, learning-oriented Operational Risk Management (ORM) systems emerge as the primary and most powerful determinant. These systems are deeply embedded in daily operations and serve as the true strategic foundation for withstanding and recovering from disruptions.

Board Independence (BI), while positively associated with resilience, plays only a secondary and far weaker role. More critically, its effectiveness is severely constrained by limited substantive integration with operational risk processes. Formal independence is widely present, yet genuine engagement with risk management practices remains partial. This persistent disconnect produces governance–risk decoupling, where higher levels of board independence can subtly weaken, rather than strengthen, the powerful contribution of mature ORM systems. In Ghanaian banking, therefore, authentic operational resilience is built first and foremost from within, through strong internal risk management capabilities, rather than from the external imposition of governance structures. Effective board oversight requires more than regulatory compliance; it demands deep informational and cultural integration with operational reality. These findings underscore that resilience in emerging financial systems remains fragile when governance reforms prioritise form over substance. True resilience emerges only when technical capability and meaningful oversight work in close partnership.

5.1. Theoretical Implications

The findings of this study extend three major theoretical traditions in meaningful ways. First, we offer a critical refinement of Risk Governance Theory. The theory normally treats formal governance structures as central to resilience. Our evidence shows this link is not universal. It depends heavily on context. Board Independence has only a modest direct effect ($\beta = 0.191$). More importantly, its interaction with Operational Risk Management is significantly negative. Together, these results give empirical weight to governance–risk decoupling. In emerging markets, simply having independent directors, exactly what global best practice recommends, is not enough. Institutional frictions such as information asymmetry and ceremonial adoption often block real oversight. Risk Governance Theory must therefore include these contingencies. Doing so explains why similar board reforms produce different resilience outcomes across countries.

Second, the study enriches the Resource-Based View (RBV). The extremely strong effect of Operational Risk Management confirms that ORM is a powerful strategic capability. Yet the same results reveal an important boundary condition. The full value of this capability is only realised when governance is substantively integrated with operations. When governance remains formal and detached, some of the strategic return is

lost. The RBV thus gains depth by connecting more closely with governance and institutional perspectives. A valuable resource can be partly wasted if the organisational system that should guide it stays decoupled from day-to-day practice.

Finally, we advance Institutional Theory in a new direction. Earlier work focused mainly on why decoupling happens. We move further. We show what decoupling costs. The negative moderating effect of Board Independence on the ORM–resilience link supplies clear quantitative proof. Ceremonial adoption is not harmless. It carries measurable, even if small, negative effects on a vital outcome. This finding links institutional sociology more firmly to strategic management. It highlights that legitimacy-driven practices can reduce efficiency and resilience, especially when regulatory pressure moves faster than cultural or informational change.

5.2. Practical Implications

The findings offer clear guidance for three key groups in Ghana’s financial sector. For bank executives and senior managers, the results demand a major change in mindset. They must stop treating Operational Risk Management (ORM) and board governance as separate boxes to tick. Instead, they should work hard to join them together. Banks need to invest in systems that give real-time, transparent risk data to both operational teams and the board. Even more important, management must open the flow of information. They should not filter or delay it. A true risk-aware culture lets operational facts reach the board quickly and fully. For boards of directors, especially independent members, this study sends a strong message. Passive oversight based only on formal reports is no longer enough. The evidence of governance–risk decoupling calls for active, informed involvement. Independent directors should arrange direct, sometimes unannounced, briefings from mid-level risk staff. This helps them bypass any managerial gatekeeping. They must also push for regular technical training. Better risk knowledge lets them ask tough questions and challenge management decisions on complex issues. Their role must shift from ceremonial monitors to real strategic partners in risk governance.

For regulators, including the Bank of Ghana, the results point to a needed change in supervision style. Simply checking that independent boards exist is not enough. The persistence of decoupling shows that a box-ticking approach cannot build true resilience. Supervision should become more evidence-based and process-focused. Regulators could ask for proof of real board challenge on risk reports. They could require clear feedback loops between board and management. They could review the actual data and tools that reach independent directors. The key question must move from “Does an independent board exist?” to “Does that independence produce informed, substantive oversight of operational risks?”. Only this deeper focus will drive genuine sector-wide resilience.

5.3. Limitations And Future Research

Every paper that provides robust insight has limits. These limits create clear paths for future work. First, a significant methodological limitation concerns the discriminant validity between Operational Risk Management (ORM) and Operational Resilience. As reported in the results, the HTMT ratio of 0.943 exceeds the conservative 0.85 threshold, and the EFA indicated a degree of item overlap. While this high empirical proximity suggests that banking professionals perceive risk management processes and resilience

outcomes as highly integrated, we retained the three-factor structure based on strong theoretical grounds (Henseler et al., 2015). Methodological literature suggests that while high HTMT ratios indicate a lack of discriminant validity, researchers may retain theoretically distinct constructs if they are conceptually non-synonymous and represent different stages of a process (Fornell & Larcker, 1981). To address this in future work, scholars should develop more behaviorally anchored or process-specific indicators that better separate discrete risk management activities from the resulting resilience outcomes in the perceptions of practitioners.

Second, we used perceptual measures. These measures are common and well-validated in governance research. Even so, future studies could add objective indicators. Data on actual incident downtime, financial losses from operational failures, or recovery times would strengthen the evidence. Combining subjective and objective metrics would give a fuller, more convincing picture of resilience.

Third, the study focuses only on Ghana's commercial banks. This narrow focus brings depth. Yet it limits direct generalisation. Future research should test the same model in other emerging markets. It should also include different financial sub-sectors, such as rural banks, microfinance institutions, and insurance companies. Comparative studies would reveal the exact boundary conditions of governance–risk decoupling.

Finally, digital transformation is changing finance fast. A promising new direction lies at the intersection of cybersecurity, digital tools, and governance. Future work could explore how boards oversee cyber risks. It could examine whether digital dashboards reduce or increase decoupling. It could also study the role of artificial intelligence in connecting (or separating) operational risk management and strategic governance in emerging economies. By pursuing these avenues, scholars can build on the present foundation. They can deepen our understanding of operational resilience in complex and rapidly changing institutional settings.

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Appendices

Appendix A: Interview Guide

Study Title:

Operational Risk Management and Board Independence as Determinants of Operational Resilience in Ghanaian Banks

General Objective:

The study investigates the impact of operational risk management practices and board independence on operational resilience of the banking industry in Ghana.

Confidentiality Assurance:

Dear Interviewee, please consider that all the information given by you will remain confidential and will be kept anonymous. Nobody will reveal your identity or the identity of the institution in which you work in any report. There are no costs, participation is voluntary, and you can withdraw your consent at any time.

Target Participants:

- Senior Managers involved in operational risk management (e.g., Chief Risk Officers, Risk Managers)
- Independent and Executive Board Members, especially those serving on risk or audit committees

Interview Questions

Section A: Operational Risk Management Practices (Objective 1)

1. What can you say about the risk management framework on operations that is being applied in your bank?
2. How does your bank determine, evaluate, and control operational risks?
3. What are some of the risks you encounter that make managing operational risks a challenge?
4. What are the means of carrying out continuous monitoring and review of the management of operational risk?
5. What is your bank doing in terms of incorporating historical experience in operational interruptions into its risk management operations today?

Section B: Board Independence (Objective 2)

6. What can be the role of independent directors in managing operational risk?
7. What is the role of board independence in gaining operational resilience?
8. What are the mechanisms of governance that allow effective control by the board on operational risks?
9. And how often does the board review operation risk reports and resilience tactics?
10. What are the challenges to the independence of the board and its responsibilities in terms of monitoring the resilience of operations?

Thank you for participating in this interview

Appendix B: Questionnaire

Study Title:

Operational Risk Management and Board Independence as Determinants of Operational Resilience in Ghanaian Banks

General Objective:

The study investigates the impact of operational risk management practices and board independence on operational resilience of the banking industry in Ghana.

Confidentiality Assurance:

Dear Participant, please note that all the information that you give is confidential and anonymous. None of the reports will reveal your identity or that of your institution. You are free to participate, and you can disengage at any moment without incurring any penalties.

Section A: Demographic Profile

1. Gender: Male Female
2. Age: 20–29 30–39 40–49 50+
3. Highest Qualification: Diploma Bachelor’s Master’s Doctorate Other
4. Position: Senior Manager Board Member Other (specify) _____
5. Years of Experience: below 3 3–5 6–10 Above 10

Response Scale:

1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA)

Kindly tick under the numbers, 1 to 5, using the scale above

Section B: Operational Risk Management Practices

No.	Statement	1	2	3	4	5
ORM1	Our bank has an official procedure when it comes to determining business risks in all material operations.					
ORM2	The operational risks are routinely evaluated on the grounds of possible impact and probability.					
ORM3	Sound controls and mitigation measures are initiated in time to help deal with risks in operations.					
ORM4	The bank is constantly keeping track of the operational risks as well as manipulating the management strategies.					
ORM5	Incident reporting systems are very good at capturing and analyzing operational risk events and losses.					
ORM6	Improvements in risk management strategies to ensure the disruption of past operations are taken into consideration.					
ORM7	The top management is actively encouraging operational risk management practices.					

Section C: Board Independence

No.	Statement	1	2	3	4	5
BI1	There are enough independent directors on the board to provide fair oversight.					
BI2	There is an active involvement of independent directors in the risk and audit committee activities.					
BI3	The concept of independent board members is very useful in challenging the decisions made by management in regards to the risks involved in the operations.					
BI4	The board also undertakes a review of operational risk reports and resilience strategies on a regular basis.					
BI5	The independence of the board sustains the functionality of the bank in case of a disruption.					
BI6	Independent directors have clear policies to favor the independence and responsibility of independent directors.					
BI7	The monitoring by the board has enabled the bank to be able to foresee and overcome operational interference.					

Section D: Operational Resilience

No.	Statement	1	2	3	4	5
OR1	The recent incidents of operational disruption can be diagnosed and reacted to at speed by the bank.					
OR2	With unfavorable incidents, critical operations carry through with little form of interference.					
OR3	The bank has good recovery measures to get the work flowing once it has been shaken.					
OR4	Operational resilience forms part of the strategy formulation and decision-making of the bank.					
OR5	The operations resilience capabilities of the bank are regularly tested and updated.					

Thank you for taking the time to respond to these questions

Appendix C: List of Banks

No.	Bank Name
1	Absa Bank Ghana Limited
2	Access Bank (Ghana) PLC
3	Agricultural Development Bank PLC
4	Bank of Africa Ghana Limited
5	CalBank PLC
6	Consolidated Bank Ghana Limited
7	Ecobank Ghana PLC
8	FBNBank (Ghana) Limited
9	Fidelity Bank Ghana Limited
10	First Atlantic Bank Limited
11	First National Bank (Ghana) Limited
12	GCB Bank PLC
13	Guaranty Trust Bank (Ghana) Limited
14	National Investment Bank Limited
15	OmniBSIC Bank Ghana Limited
16	Prudential Bank Limited
17	Republic Bank (Ghana) PLC
18	Societe Generale Ghana PLC
19	Stanbic Bank Ghana Limited
20	Standard Chartered Bank Ghana PLC
21	United Bank for Africa (Ghana) Limited
22	Universal Merchant Bank Limited
23	Zenith Bank (Ghana) Limited