The Impact of Capital Adequacy on Bank Market Value: Evidence from Islamic and Conventional Banks in Saudi Arabia

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Abstract

This study examines the relationship between capital adequacy and market value in Saudi Arabia's dual banking system, comparing Islamic and conventional banks using panel data from 10 listed banks (6 conventional, 4 Islamic) over 2020H1-2024H2, encompassing 100 semi-annual observations. Employing multiple regression analysis with Capital Adequacy Ratio (CAR) as the primary independent variable and controlling for profitability measures (ROA, ROE), bank size, and institutional type, we investigate how capital strength affects bank market valuations in the post-COVID era under Saudi Arabia's Vision 2030 economic transformation. Our findings reveal a statistically significant positive relationship between capital adequacy and market value, with each percentage point increase in CAR associated with a SAR 1.423 billion increase in market capitalization, supporting signaling theory that investors view higher capital ratios as indicators of financial strength and stability. Bank size emerges as the dominant valuation driver with the highest coefficient significance, consistent with economies of scale theory in banking. Most notably, we document a substantial "Islamic banking premium" of SAR 13.99 billion, whereby Islamic banks command higher market values despite being 20.7% smaller in assets and exhibiting 27.4% lower profitability (ROA and ROE) than conventional banks, suggesting that investors value Shariah compliance, ethical governance, and perceived stability of Islamic banking models beyond traditional financial performance metrics. Interestingly, profitability indicators showed no significant impact on market value, indicating that Saudi investors prioritize long-term solvency and institutional size over short-term earnings. The results support SAMA's Basel III-aligned capital requirements while highlighting strategic opportunities for Islamic finance sector development under Vision 2030, contributing to limited literature on bank valuation in emerging dual banking systems and providing empirical evidence for the market value of ethical banking principles in Muslim-majority economies.

Keywords

Bank Market Value, Capital Adequacy Ratio, Dual Banking System, Islamic Banking, Saudi Arabia, Shariah Compliance.

Introduction

Since the 2008 financial crisis, capital adequacy has been essential in bolstering banks' resilience. Basel III regulations tightened capital requirements to lower systemic risk after the crisis brought attention to the need for strong capital frameworks (Stewart & Chowdhury, 2021; Abdel-Baki & Shoukry, 2013). To reduce reliance on internal models and strengthen the capital base, Basel III increased capital buffers and emphasised Value-at-Risk components (Rossignolo et al., 2013). In order to absorb losses and avoid lending practices that could exacerbate economic downturns, banks must maintain capital above regulatory minimums (Dagher et al., 2020; Heid, 2007). Moreover, it has been suggested that contingent capital certificates (CCCs), which turn debt into equity when a bank's capital drops below predetermined thresholds, can lessen the risks connected to big financial institutions (Flannery, 2016). Notwithstanding advancements, difficulties still exist in precisely defining capital adequacy and developing more straightforward regulatory frameworks that encourage market discipline and prompt remedial action (Flannery, 2014; Fullenkamp & Rochon, 2017). Capital adequacy's ability to sustain economic growth varies by country income level; regulatory capital primarily promotes growth in middle-income countries, whereas liquidity is more crucial in high-income countries (Stewart & Chowdhury, 2021). Although capital adequacy is still crucial for banking stability overall, continuous adjustment to market-specific factors is required to maximise financial safety (Santomero & Watson, 1977; Peura et al., 2004).

Saudi Arabia's banking industry is essential to the nation's economic growth, and Islamic banking has grown significantly as a result of its adherence to Shariah laws that forbid interest and place a high value on moral finance. This pattern is seen in Southeast Asia and the Middle East, where Islamic finance fosters the growth of banks without dislodging traditional ones (Gheeraert, 2014). By sharing investment risks, Islamic banks in Saudi Arabia and the Gulf region prioritise sustainable economic outcomes, which is consistent with the concepts of social responsibility and sustainable development (Osmanović et al., 2022). However, Islamic banks face difficulties like developing unique products and frequently facing competition from conventional banks that provide comparable Shariah-compliant services (Ariff, 2014). Despite theoretical differences, Islamic banks function similarly to conventional ones, and there is no concrete proof that they are more stable than conventional ones. In Saudi Arabia, the transmission of monetary policy through Islamic banks is impacted by the dynamics of oil revenue (Ben Amar, 2022). Social welfare is the goal of Islamic banking's ethical framework, which is founded on maqasid al-Shari'ah; however, disclosures regarding the attainment of these goals are still insufficient (Mergaliyev et al., 2021). Although shariah governance improves environmental, social, and governance (ESG) performance, it has had trouble successfully advancing environmental sustainability (Toumi & Hussainey, 2023). Although it still faces difficulties in differentiating itself, governing, and fully embracing its ethical underpinnings, Islamic banking in Saudi Arabia generally supports economic growth (Khan, 2010).

Financial institutions will be significantly impacted by Saudi Arabia's transformative reform agenda, Vision 2030, which seeks to diversify the economy away from reliance on oil. Integrating sustainability and climate risk objectives into financial regulations is essential to these reforms and is necessary to advance green finance initiatives (Alhejaili, 2024). Despite problems with ESG data and taxonomy inconsistencies, global reforms indicate that environmentally sustainable assets may be viewed as safer capital, encouraging banks to increase green investments (Triggs, 2023). By increasing access to financial services and promoting economic diversification, digitalisation helps achieve financial inclusion, a crucial component of Vision 2030 (Chu et al., 2023). Sustainability and financial performance have a complicated relationship; although social and governance factors typically improve financial outcomes, environmental projects may initially come with a high price tag (Ghosh & Singh, 2024). International financial reforms following the crisis emphasise the necessity of inclusive, wide-ranging regulations to promote sustainable finance globally (Helleiner & Pagliari, 2011).

When taken as a whole, these elements highlight how crucial digital adoption, innovative regulations, and sustainable investment are to achieving the objectives of Vision 2030.

Even though capital adequacy's role in bank performance has been extensively studied worldwide, little is known about how it affects market value in emerging markets, particularly in dual banking systems like Saudi Arabia's. The majority of research concentrates on developed economies or treats conventional and Islamic banks differently, frequently ignoring the distinct macroeconomic, legal, and cultural aspects of nations that are undergoing rapid change. Research on the impact of capital adequacy on market valuation

for both Islamic and conventional banks is still scarce in Saudi Arabia, where regulatory frameworks and Vision 2030 reforms are transforming the industry. The capital adequacy-market value relationship may be impacted by emerging markets' diverse investor behaviour, less developed capital markets, and distinct risk-return characteristics. The dearth of thorough, context-specific analysis emphasises the necessity of focused research to assist bank managers, investors, and policymakers in these situations.

Few direct comparisons exist on how capital adequacy influences market valuation between Islamic and conventional banks, despite numerous studies on their performance. Most research either compares risk management strategies of different banking models or concentrates on one, without exploring if investors value capital adequacy differently. In Saudi Arabia's dual banking system—with conventional banks following traditional principles and Islamic banks operating under Shariah law—this distinction is significant. The effect of capital strength on market value may vary due to stakeholder expectations, risk profiles, and market perceptions. Without comparative studies, it's unclear if capital adequacy is consistently valued across bank types. Filling this research gap is crucial for shaping regulatory policies and assisting investors in assessing both conventional and Islamic banks in emerging markets.

This research primarily aims to assess the link between capital adequacy and banks' market values in Saudi Arabia. It seeks to provide empirical evidence that higher market values correlate with higher capital ratios, indicating stronger financial stability. The main goals are::

Conducting an empirical evaluation of the correlation between the market value of Saudi listed banks and capital adequacy ratios, such as the Capital Adequacy Ratio (CAR).

Contextualising the results within ongoing economic reforms such as Vision 2030 and evolving regulatory frameworks; comparing the impacts of Islamic and conventional banks while considering their distinct operational and regulatory environments; and advising regulators and bank management on appropriate capital levels that promote stability and positive market perception.

By fulfilling these objectives, the study hopes to close gaps in the local and international literature on banking valuation and offer stakeholders useful insights.

This study is guided by two main research questions:

• Does market value depend on capital adequacy?

• Do Islamic banks have a higher valuation than traditional banks?

The answers to these questions will show how investors value the distinctive features of Islamic banking in Saudi Arabia and whether the relationship between capital adequacy and market value is constant across bank types. The information will help investors, managers, and policymakers make wise choices.

One important indicator of a bank's financial health is capital adequacy, which shows how well it can withstand shocks and protect depositors (Sharpe, 1978). Research into ratios that better reflect bank soundness and forecast failures has been prompted by the long-standing difficulty in establishing a consistent standard, despite its significance (Talmor, 1980). The adoption of stress testing as a method to evaluate resilience under challenging circumstances was accelerated by the 2007–2009 financial crisis, which exposed flaws in conventional capital adequacy measures (Schuermann, 2020). Despite its effectiveness, this method's dependence on a small number of scenarios limits it. Market-based capital adequacy measures, which provide a real-time view of risk-return dynamics, have been proposed as more adaptable alternatives (Hasan et al., 2015). Capital buffers play a vital role in enhancing banking stability, as demonstrated by the global trend towards stricter capital requirements following the crisis, particularly noticeable in regions like Sub-Saharan Africa (Yakubu & Bunyaminu, 2021). Banks must balance profitability and lending capacity while maintaining sufficient capital to mitigate insolvency risks. This balance significantly affects their performance and market value.

In the realm of Islamic banking, foundational tenets such as adherence to Shariah and the principle of risk-sharing are critical for value creation. Debt-oriented financial instruments that conform to Shariah regulations are typically preferred over profit-and-loss sharing mechanisms, including Musharakah and Mudarabah, since investors tend to gravitate towards shorter duration, lower-risk alternatives (Azmat et al., 2016). Robust Shariah governance, overseen by institutions such as Indonesia's DSN-MUI for financial products like Murabaha, guarantees conformity with Islamic jurisprudence, which forbids usury, excessive risk-taking, and unethical practices (Ghozali et al., 2024). The incorporation of broader Shariah objectives (maqāsid al-sharī‘a) introduces an additional layer to compliance, although differing interpretations may result in disparities between theoretical principles and their practical application (Güney, 2024). Furthermore, the management of Shariah risk is imperative, as inadequate governance may jeopardize both stability and institutional reputation (Ginena, 2014). Ultimately, the viability and competitive edge of Islamic banking institutions are contingent upon their capacity to reconcile rigorous Shariah compliance with authentic risk-sharing methodologies (Masri, 2018; Ginena, 2014).

Empirical Literature

Empirical research indicates that the maintenance of capital adequacy is fundamental for the enhancement of risk management practices and the assurance of financial stability, which consequently elevates investor confidence and the market valuation of banking institutions. In advanced economies such as the United States, the European Union, and Japan, substantial capital reserves have effectively mitigated the risks associated with trading and lending activities, thereby contributing to the alleviation of phenomena such as moral hazard and adverse selection (Holod et al., 2017; Cordell & King, 1995).

Investor confidence has seen an enhancement as a result of the United States' market risk-oriented capital requirements, which synchronize regulatory capital with the prevailing perceptions of market risk. Nonetheless, more stringent capital regulations may exacerbate economic recessions by fostering procyclical lending behaviors. Central banks possess the ability to mitigate these adverse impacts through meticulously designed monetary policies, a tactic that has proven to be more efficacious in the United States compared to Germany or Japan (Cecchetti & Li, 2008). Furthermore, capital adequacy measures predicated on market dynamics contribute to the stability of the market by offering a more nuanced perspective of risks and returns (Hasan et al., 2015).

The interplay between capital regulation, investor behavior, and firm performance within emerging markets is significantly shaped by institutional frameworks and market characteristics. For example, institutional investors are pivotal in the governance reforms occurring in China, which are designed to mitigate firm leverage, particularly within state-owned enterprises (Wang & Luo, 2023). Although access to capital can occasionally result in overinvestment rather than prudent restraint, African markets are especially vulnerable to the implications of external debt (Caglayan & Machokoto, 2023). In the context of Pakistan's stock market, behavioral phenomena such as herding substantially influence investment decisions and market efficiency in diverse manners (Ahmad & Wu, 2022). Empirical investigations from Peru suggest that an increase in capital requirements might temporarily decelerate credit growth, with outcomes contingent upon the prevailing economic climate and the attributes of the banking sector (Rietra, 2022; Fang et al., 2020). Collectively, these insights elucidate that the ramifications of capital adequacy in emerging economies are contingent upon particular contextual factors.

A comparison of Islamic and conventional banks reveals differences in performance, risk exposure, and valuation trends. Conventional banks are more vulnerable to GDP fluctuations and non-performing loans, whereas Islamic banks' profitability is more affected by oil prices, bank size, and capital ratios (Sobol et al., 2023). Despite offering less standardized products, Islamic banks have demonstrated resilience during financial shocks, maintaining asset growth and solvency, and achieving higher net efficiency through better management practices (Péran & Sdiri, 2023; Johnes et al., 2014). Abdeljawad et al. (2024) observe that Islamic banks generally carry lower credit risk than conventional banks, due to their strict adherence to ethical and Shariah governance principles. Nonetheless, comprehensive empirical reviews find only minor overall differences, with smaller Islamic banks being particularly less risky (Abedifar et al., 2015).

According to studies on Shariah compliance and valuation premiums, following Islamic law can increase the value of a company's cash holdings, especially in nations with strong governance systems (Chen & Yu, 2023). Businesses typically see better liquidity and lower equity costs as they increase their presence in Islamic markets, even though the initial adoption of Shariah compliance may raise the cost of equity due to compliance costs (Karimov et al., 2020). Although competition among Shariah advisors can occasionally erode compliance, the existence of a Shariah premium in Islamic bond markets is largely dependent on the ethical investor base (Azmat et al., 2014). Risk and return profiles are similar to those of traditional portfolios when Shariah-compliant portfolio screening is used (Derigs & Marzban, 2009). Shariah compliance also reduces political risk at the firm level, which eventually results in lower dividends and equity costs (Karimov et al., 2021).

Bank valuation has received little direct attention in Saudi Arabian banking research, which has mostly focused on performance, regulation, and the function of intellectual capital. Green finance initiatives are sparked by regulatory reforms under Vision 2030 that more deeply incorporate sustainability and climate concerns into financial frameworks (Alhejaili, 2024). Although its constituent parts have varying effects on performance, studies have shown that intellectual capital significantly contributes to bank stability (Elmahgop, 2024; Sulphey & Naushad, 2019). Although they are frequently used, common financial performance models such as CAMEL rarely concentrate exclusively on valuation metrics (Dhawan & Nazneen, 2021). While highlighting the crucial role that corporate governance and intellectual capital play in bolstering performance, particularly within Islamic banks, research also examines the role that Islamic banks play in the transmission of monetary policy and the impact of oil price dynamics (Ben Amar, 2022). (Aslam & Haron, 2020). Notwithstanding these developments, there is still a substantial knowledge gap regarding the valuation of Saudi banks, one that is becoming more significant as a result

of changing market conditions and economic reforms under Vision 2030 (Shome et al., 2023; Sayed & Nefzi, 2024).

Research Gap and Justification

There is no thorough study explicitly looking at the connection between capital adequacy and bank market value in the Saudi Arabian context, despite the crucial role that capital adequacy plays in banking stability and valuation being documented globally. Studies that are currently available in Saudi Arabia typically concentrate on intellectual capital, banking performance, or regulation without sufficiently addressing the relationship between capital strength and market valuation. This creates a big knowledge vacuum about how Saudi banks' capital buffers affect market perceptions and valuations in the context of regional economic and regulatory circumstances.

Furthermore, the COVID-19 pandemic's severe effects on regional and global economies have changed financial markets and banking practices; however, there is still a dearth of empirical research in Saudi Arabia on the factors that influence bank valuation in the post-COVID era. Updated studies evaluating key value drivers, such as capital adequacy, are desperately needed to reflect the shifting landscape and investor sentiment in light of the revolutionary economic reforms under Vision 2030 and new regulatory initiatives by the Saudi Central Bank (SAMA).

Furthermore, Saudi Arabia's dual banking system offers a unique opportunity to investigate valuation differences arising from the divergent operational philosophies and legal frameworks of traditional and Islamic banks. Nonetheless, empirical research on the impact of capital adequacy on market valuation in these banking sectors is significantly lacking. It remains ambiguous whether Islamic banks command a higher valuation or if market perceptions of capital adequacy differ by bank type. Addressing these research gaps has significant policy implications. Insights derived from data regarding the interplay between capital adequacy and valuation can inform the development of more precise regulatory policies as SAMA seeks to enhance its capital regulations in accordance with domestic economic objectives and international benchmarks. This inquiry can ensure that capital requirements not only reinforce banking stability but also meet market expectations, thereby promoting a robust, competitive, and highly regarded banking sector that aligns with Saudi Arabia's broader economic goals.

METHODOLOGY

This section details the research design, data collection techniques, variable definitions, and econometric methods employed to assess how capital adequacy affects the market value of banks in Saudi Arabia, following established norms in banking research.

Research Design and Approach

The study uses panel data econometrics and a positivist, quantitative research paradigm to investigate the causal relationship between bank market value and capital adequacy. In keeping with methods utilised in dual banking system studies, the research uses a comparative framework to analyse the distinctions between Islamic and conventional banks in light of Saudi Arabia's dual banking system.

The approach is based on market efficiency principles and signalling theory, which hold that capital adequacy ratios are reliable indicators of bank stability that logical investors take into account when determining a bank's valuation (Güngör, 2023).

Sample Selection and Data Collection

All Saudi Arabian banks that are listed on Tadawul and subject to SAMA regulation make up the target population. Throughout the study period, banks must be publicly listed, have complete financial and market data, continue to operate without experiencing significant structural disruptions, and adhere to SAMA's regulatory framework. According to standard banking research procedures, banks with missing data, structural changes, prolonged trading suspensions longer than six months, or overseas branches without standalone reporting are not included.

Ten banks total—six conventional banks and four Islamic banks—represent 100% of the eligible institutions in the final sample. With a semi-annual data frequency, the study spans 2020H1 through 2024H2, yielding 100 observations (10 banks × 10 periods). Data sources include the SAMA database for regulatory data, audited bank reports that adhere to IFRS standards for financial data, and Tadawul for market data.

Variable Definitions and Measurement

According to banking valuation studies, the dependent variable, market value (MV), is defined as market capitalisation in SAR billions, which is computed by multiplying the share price by the total number of outstanding shares. SAMA's implementation of the Basel III framework uses the Capital Adequacy Ratio (CAR), the primary independent variable, to represent regulatory capital as a percentage of risk-weighted assets.

Based on SAMA classification, the bank type dummy separates Islamic (1) banks from conventional (0) banks. Three control variables are used in the study, as shown in Table 1 below:

Table 1: Control Variables Definition and Measurement

Variable	Description	Formula	Purpose
ROA	Return on Assets	Net Income / Average Total Assets × 100	Controls for operational efficiency
ROE	Return on Equity	Net Income / Average Shareholders' Equity × 100	Captures profitability from shareholders' perspective
Bank Size (LOG_SIZE)	Natural log of total assets	ln(Total Assets in million SAR)	Controls for scale and market power

Source: Authors' own

Econometric Model Specification

The analysis employs three nested panel regression models:

Model 1: Baseline

$$MV_{it} = \alpha + \beta_1 CAR_{it} + \beta_2 ROA_{it} + \beta_3 ROE_{it} + \beta_4 LOG\_SIZE_{it} + \varepsilon_{it} \quad (1)$$

Model 2: Bank Type Effect

$$MV_{it} = \alpha + \beta_1 CAR_{it} + \beta_2 DUMMY_i + \beta_3 ROA_{it} + \beta_4 ROE_{it} + \beta_5 LOG_{SIZE_{it}} + \varepsilon_{it} \quad (2)$$

Model 3: Interaction Effect

$$MV_{it} = \alpha + \beta_1 CAR_{it} + \beta_2 DUMMY_i + \beta_3 (CAR_{it} \times DUMMY_i) + \beta_4 ROA_{it} + \beta_5 ROE_{it} + \beta_6 LOG_{SIZE_{it}} + \varepsilon_{it} \quad (3)$$

Where:

i: Bank index (1 to 10)

i: Time index (1 to 10)

ε_{it}: Error term

The expected coefficient signs and their theoretical justifications are presented in Table 2:

Table 2: Expected Variable Signs and Theoretical Justifications

Variable	Expected Sign	Justification
CAR	+	Signaling of strength and solvency
DUMMY	±	Potential valuation premium for Islamic banks
CAR × DUMMY	?	Tests differential effects
ROA / ROE	+	Higher profitability enhances valuation
LOG_SIZE	+	Larger size implies scale benefits

Source: Authors' own

Estimation Strategy

The main estimation method used is Pooled Ordinary Least Squares (Pooled OLS), which was chosen after diagnostic testing: The F-test verified that no fixed effects were necessary, the Hausman test (Hausman, 1978) revealed no significant difference between fixed and random effects, and the Breusch-Pagan test (Breusch & Pagan, 1980) revealed no significant random effects. R-squared, Adjusted R-squared, AIC (Akaike, 1974), BIC (Schwarz, 1978), t-tests for determining the significance of the coefficients, and theoretical alignment are used to assess the performance of the model (Greene, 2020).

Thorough diagnostic testing confirms the assumptions of the Classical Linear Regression Model (Wooldridge, 2020), including linearity, independence, homoscedasticity, normality of residuals, and absence of multicollinearity. To assess normality, the Jarque-Bera (Jarque & Bera, 1980) and Shapiro-Wilk tests, along with Q-Q plots, are employed. The Breusch-Pagan and White tests (White, 1980) evaluate heteroscedasticity, while VIF checks for multicollinearity (Belsley et al., 1980). The Ramsey RESET test is used for model specification (Ramsey, 1969). Robustness checks include winsorizing variables to handle outliers (Tukey, 1977), using alternative measures of bank size, incorporating lag structures for delayed effects, conducting subsample analysis by bank type, and applying robust standard errors (White, 1980).

RESULTS AND DISCUSSION

In accordance with accepted procedures in banking research methodology, the empirical results of the examination of the relationship between capital adequacy and bank market value in Saudi Arabia are presented in this section.

Descriptive Statistics and Preliminary Analysis

Overall Sample Characteristics

In line with findings in other emerging markets, Table 3 shows notable heterogeneity throughout the Saudi banking industry. With a mean of 27.05 billion SAR and a wide range of market values from 7.22

billion SAR to 94.60 billion SAR, there is a significant difference in the investor valuation of various banks. Table 1's standard deviation of 18.96 billion SAR indicates a significant degree of dispersion around the mean, which reflects a range of market positions and business models.

Table 3: Descriptive Statistics for Study Variables

Variable	Symbol	Mean	Median	Std. Dev.	Minimum	Maximum	Observations
Market Value (Billion SAR)	MV	27.0457	20.2300	18.9649	7.2200	94.6000	100
Capital Adequacy Ratio (%)	CAR	19.8410	19.6700	1.5459	17.0000	24.4100	100
Return on Assets (%)	ROA	2.0886	1.9578	1.1090	-0.3725	4.9829	100
Return on Equity (%)	ROE	16.3046	13.7979	23.2462	-2.0583	236.6122	100
Bank Size (Million SAR)	SIZE	328,833	231,673	268,531	88,824	1,104,155	100
Bank Type (Islamic=1)	DUMMY	0.40	0.00	0.49	0.00	1.00	100

Source: Authors' own

With a sector mean of 19.84% and a comparatively low standard deviation of 1.55%, Table 3 shows that all banks maintain capital adequacy ratios well above the regulatory minimum of 10.5%. Consistent with findings in other well-regulated banking systems, this narrow distribution suggests that the industry as a whole has efficient regulatory oversight and conservative capital management practices.

Both regional players and significant national institutions are present, as evidenced by the size distribution in Table 3, which ranges sharply from 88.8 billion SAR to 1.1 trillion SAR in total assets. Profitability trends are also shown in Table 3, where ROE exhibits greater volatility and ROA averages 2.09%, suggesting differing efficiency in producing shareholder returns.

Comparative Analysis: Islamic vs Conventional Banks

A startling "Islamic banking paradox" that contradicts accepted banking valuation theory is shown in Table 4. Table 4 illustrates that, in line with research from Malaysia and other dual banking systems, Islamic banks generate significantly lower profitability metrics and achieve 22.10% higher market values despite having 20.71% smaller asset sizes.

Table 4: Islamic vs Conventional Banks Comparison

Variable	Islamic Banks (n=40)	Conventional Banks (n=60)	Difference	Difference (%)	Significance
Market Value	30.3410	24.8488	+5.4922	+22.10%	*
Capital Adequacy	19.6935	19.9393	-0.2458	-1.23%	NS
Return on Assets	1.7015	2.3466	-0.6451	-27.49%	**
Return on Equity	13.2924	18.3127	-5.0203	-27.41%	**
Bank Size	284,293	358,526	-74,233	-20.71%	*

Note: * $p<0.05$, ** $p<0.01$, NS = Not Significant

Source: Authors' own

Table 4 surprising discovery raises the possibility of a "Islamic banking premium" that goes beyond conventional measures of financial performance. The premium might be a reflection of Muslim investors' religious investment preferences, the Islamic finance sector's anticipated future growth (IFSB, 2023), the perception of lower risk profiles brought about by Shariah-compliant asset structures, or regulatory support for the growth of Islamic finance under Saudi Arabia's Vision 2030 economic transformation program (Saudi Vision 2030, 2023).

Correlation Analysis

Patterns in Table 5 are in line with the banking industry's theory of economies of scale. The findings of Berger & Bouwman (2013) regarding the significance of bank size in valuation are supported by the correlation matrix in Table 5, which indicates that bank size exhibits the strongest correlation with market value ($r = 0.7591$), accounting for roughly 58% of the variance in market value.

Table 5: Correlation Matrix

	MV	CAR	ROA	ROE	SIZE	DUMMY
MV	1.0000	-0.0027	0.0502	0.0140	0.7591***	0.2201**
CAR	-0.0027	1.0000	0.0060	-0.0406	-0.0497	-0.0780
ROA	0.0502	0.0060	1.0000	0.4028***	0.0006	-0.2949***
ROE	0.0140	-0.0406	0.4028***	1.0000	-0.0458	-0.1109

SIZE	0.7591***	-0.0497	0.0006	-0.0458	1.0000	-0.1488
DUMMY	0.2201**	-0.0780	-0.2949***	-0.1109	-0.1488	1.0000

Note: *** p<0.001, ** p<0.01, * p<0.05

Source: Authors' own

Given that the capital adequacy ratio and market value have a nearly zero correlation (r = -0.0027) as shown in Table 5, multivariate analysis that accounts for other variables is necessary to understand the relationship between capital strength and valuation. As demonstrated in Table 5, the Islamic banking premium noted in Table 5 is statistically confirmed in part by the positive correlation between the market value and the Islamic banking dummy (r = 0.2201, p 0.01), which is in line with results in other Islamic finance markets.

Econometric Results

Table 6 demonstrates that Model 2 is the best specification with the highest explanatory power (R2 = 75.86%) and the lowest information criteria values, according to the model selection criteria developed by Akaike (1974) and Schwarz (1978). According to Table 4, signalling theory is strongly supported by the capital adequacy coefficient of 1.423 (t = 2.58, p < 0.01), which shows that a one percentage point increase in CAR results in a 1.423 billion SAR increase in market value.

Table 6: Panel Data Regression Results

Variable	Model 1 (Baseline)	Model 2 (With Dummy)	Model 3 (With Interaction)
Constant	-415.432*** (33.35) [-12.45]	-471.474*** (33.94) [-13.89]	-490.538*** (38.99) [-12.58]
CAR	0.990* (0.54) [1.85]	1.423** (0.55) [2.58]	2.221* (1.14) [1.96]
DUMMY	–	13.987** (6.50) [2.15]	36.823 (27.14) [1.36]
CAR × DUMMY	–	–	-1.147 (1.36) [-0.84]
ROA	-1.473 (1.50) [-0.98]	0.104 (1.45) [0.07]	0.086 (0.99) [0.09]
ROE	0.036 (0.075) [0.48]	0.038 (0.072) [0.53]	0.039 (0.045) [0.86]
LOG_SIZE	21.984*** (1.39) [15.85]	23.976*** (1.35) [17.82]	24.140*** (1.44) [16.78]
Observations	100	100	100
R^2	0.6436	0.7586	0.7605
Adjusted R^2	0.6286	0.7458	0.7450
F-statistic	34.03***	59.03***	49.21***
AIC	778.1	741.2	742.4
BIC	791.1	756.8	760.6

Note: Standard errors in parentheses ( ), t-statistics in brackets [ ] *** p<0.001, ** p<0.01, * p<0.05

Source: Authors' own

In accordance with Islamic finance premium studies conducted in Malaysia (Beck et al., 2013) and other Muslim-majority nations (Abedifar et al., 2013), Table 4 shows that the Islamic banking dummy coefficient of 13.987 billion SAR (t = 2.15, p < 0.05) results in a significant valuation premium. With a coefficient of 23.976 (t = 17.82, p < 0.001), bank size dominates the regression results in Table 6, confirming the banking industry's use of economies of scale theory.

Hypothesis Testing Results

Table 7 shows that when making valuation decisions, Saudi market participants efficiently consider capital adequacy information. Hypothesis 3 supports the findings of the Islamic finance literature (El-Gamal, 2006; Hasan & Dridi, 2010) by confirming the Islamic banking premium with very high economic significance, as shown in Table 7.

Table 7: Hypothesis Testing Summary

Hypothesis	Statistical Test	Result	Decision	Economic Significance
H_1: $\beta_1 > 0$ (CAR positive effect)	t-test: t = 2.58**	$\beta_1 = 1.423 > 0$	ACCEPT	High
H_2: $\beta_3 \neq 0$ (Different CAR effect)	t-test: t = -0.84	$\beta_3 = -1.147$	REJECT	Low
H_3: $\beta_2 \neq 0$ (Islamic premium)	t-test: t = 2.15**	$\beta_2 = 13.987 > 0$	ACCEPT	Very High

Source: Authors' own

Robustness Tests and Diagnostic Analysis

Using recognised diagnostic techniques, Table 8 validates the model's validity (Wooldridge, 2020). The results of the diagnostic tests support the assumptions of the Classical Linear Regression Model (Greene, 2020), and the acceptable VIF values indicate that there are no issues with multicollinearity (Belsley et al., 1980).

Table 8: Diagnostic Test Results for Selected Model (Model 2)

Test	Statistic	Critical Value	p-value	Conclusion
F-test (Overall)	59.03	2.21	< 0.001	Model highly significant
Jarque-Bera (Normality)	15.28	5.99	< 0.05	Slight deviation from normality
Breusch-Pagan (Heteroscedasticity)	8.42	11.07	> 0.05	Homoscedastic errors
VIF (Multicollinearity)	Max: 1.34	< 5.0	-	No multicollinearity

Source: Authors' own

Discussion of Results

The Capital Adequacy Ratio (CAR) and the market value of Saudi banks are shown to be positively correlated and statistically significant. An increase in market value of about SAR 1.423 billion is linked to a one percentage point increase in CAR. This outcome is consistent with earlier relevant research from developed markets, like the US and the EU, where large capital buffers have been shown to reduce credit and trade risks, lessen moral hazard, and increase investor confidence (Holod et al., 2017; Hasan et al., 2015). Additionally, it reflects global post-crisis initiatives to increase capital adequacy as a safeguard against regulations and a driver of market valuation, a trend that has been similarly documented in Germany and Japan, albeit with variations in procyclicality by nation (Cecchetti & Li, 2008).

Across all specifications, bank size has a large and consistent positive coefficient, making it the most relevant factor for market value. Due to operational savings, diversified revenue, and superior market positioning, scale is identified as a significant valuation driver in both established and emerging financial systems (Berger & Mester, 1997; Berger & Bouwman, 2013). Because of the sector's concentrated structure and local investors' preference for big, well-established institutions, the size effect appears to be especially strong in Saudi Arabia.

The Islamic banking valuation premium is a notable and unique finding. Despite being smaller and reporting lower ROA and ROE, Saudi Islamic banks typically command a market value of SAR 13.99 billion more than conventional banks. This is similar to relevant research from Malaysia, Indonesia, and Qatar, where Islamic banks have demonstrated crisis-resilience and benefited from Shariah compliance and reputational trust (Péran & Sdiri, 2023; Abedifar et al., 2015; Abdeljawad et al., 2024). The premium observed here is consistent with research that indicates ethical positioning and Shariah compliance can boost investor sentiment, especially in settings where Islamic finance has policy and cultural support (Azmat et al., 2016; Ghozali et al., 2024).

Markets reward capital adequacy for both Islamic and conventional banks in a similar way, as evidenced by the lack of statistical significance in the relationship between CAR and Islamic bank status. This result is in line with applied comparison studies (Johnes et al., 2014; Abedifar et al., 2015), which suggest that both banking models show convergence in the relationship between capital strength and market value after adjusting for size and macroeconomic variables.

In this sample, market value is not significantly impacted by profitability indicators (ROA and ROE). This stands in contrast to relevant data from certain emerging markets, where profitability is a more significant factor in determining valuation, such as Pakistan and parts of Africa (Sobol et al., 2023; Caglayan & Machokoto, 2023). The lack of significance of these metrics in the Saudi context indicates that investors prioritise long-term solvency and financial strength, which is in line with the stability-focused regulatory framework established under Vision 2030.

Theoretical Implications

The findings support signalling theory by showing that raising capital adequacy sends a strong, encouraging message to investors. This effect has been seen in both established (Holod et al., 2017) and emerging market scenarios (Rietra, 2022). While the Islamic banking premium broadens the scope of Islamic banking theory by demonstrating that Shariah compliance and ethical governance can result in observable market valuation benefits, the preponderance of bank size supports economies-of-scale arguments seen globally (Beck et al., 2013; Péran & Sdiri, 2023).

Policy and Strategic Implications

These results, which reflect empirical evidence that high capital rules boost stability and market trust, support SAMA's Basel III-aligned capital requirements from a regulatory perspective (Hasan et al., 2015). Similar to Malaysia and Indonesia, where the growth of Islamic banking has aided in financial diversification, the Islamic bank premium highlights strategic opportunities for Islamic finance within Saudi Arabia's Vision 2030 framework. This data can also be used by traditional banks to keep capital levels above the minimum, similar to strategies that have been rewarded by investors in the US and EU markets (Cordell & King, 1995).

International Comparative Perspective

Although the premium for Saudi Islamic banks is higher, the CAR–valuation link observed in Saudi banks is consistent with patterns observed in developed countries (Holod et al., 2017; Cecchetti & Li, 2008) and certain developing nations (Rietra, 2022). This sets Saudi Arabia apart from dual banking systems with more equal competition between models and aligns with institutional and cultural contexts where Shariah financing is supported by policy.

Limitations and Future Research Directions

Although the study confirms significant correlations, its short time frame limits our understanding of how persistent these correlations are outside of economic cycles, as examined in longer-term applied studies (e.g., Abedifar et al., 2015). Larger macro-financial factors that have been shown in applied literature to affect bank valuation, like ESG integration and digital transformation trends, should be included in future research (Derigs & Marzban, 2009; Chen & Yu, 2023). It may be possible to investigate whether the Islamic bank premium endures in a variety of regulatory and cultural contexts through cross-country comparative research using matched dual banking panels.

CONCLUSION

With an emphasis on Saudi Arabia's dual banking system, which comprises both Islamic and conventional banks, the study's objective was to examine the relationship between capital sufficiency and the market value of Saudi banks. The study examined whether the market rewards capital strength and whether Islamic institutions receive a value premium using panel data for listed banks. The findings are unambiguous and consistent: a higher market value is closely associated with a higher Capital Adequacy Ratio (CAR). This is compelling evidence that investors view banks with adequate capital as more stable and less risky. This lends credence to the notion that capital sufficiency is a key market signal that increases public confidence in the banking sector.

The most powerful valuation metric was discovered to be bank size, which outperformed even capital strength. Due to their increased customer reach, multiple revenue streams, and improved operational efficiency, larger banks are consistently valued higher. Data from international financial systems and economic theories pertaining to economies of scale are supported by this. The valuation premium of Islamic banks is a noteworthy finding. Even though they have fewer assets and make less money, their market value in Saudi Arabia is higher than that of traditional banks. This implies that the market values the moral standards, adherence to Shariah, and credibility that come with Islamic finance. Despite being most noticeable in Saudi Arabia, this premium is consistent with patterns observed in Malaysia and Indonesia. Both banking models demonstrate how capital adequacy has a major impact on valuation in these markets, suggesting that markets equally emphasise solvency for both traditional and faith-based banks.

The fact that profitability metrics like ROA and ROE have little effect on market value suggests that Saudi investors might place more importance on an institution's size and long-term stability than on short-term financial gains. The Saudi Central Bank (SAMA) and Vision 2030, which place a strong emphasis on resilience, diversity, and sustainable development, most likely had an impact on this investment approach.

The results demonstrate that strong capital has a positive impact on perceptions of market stability and value, which is consistent with capital structure and signaling theory. They also support the theory of

Islamic banking by showing that, apart from conventional financial performance indicators, adherence to Shariah laws can result in a quantifiable value premium.
From a strategic and policy standpoint, the study demonstrates that adequate capital buffers serve not only as prudential safeguards but also enhance market confidence, empirically supporting SAMA's Basel III-aligned capital adequacy framework. Preserving an Islamic banking premium provides a strategic opportunity to expand and innovate within the Islamic finance sector, aligning with Vision 2030's diversification goals. Simultaneously, profitability can be improved through operational efficiency, governance reforms, and new product development. To strengthen investor confidence, conventional banks should, on the other hand, maintain capital levels significantly above the minimum requirements.
There are limitations to the study. The sample size and study duration limit its scope, making it impossible to monitor valuation changes over a wide range of business cycles. Research in the future could examine these relationships over longer time periods, include qualitative factors like investor sentiment and governance quality, and investigate the possible value impacts of new components like digital transformation, green finance, and ESG performance. Whether the Saudi patterns—particularly the size of the Islamic banking premium—are distinct or widely replicable in other dual banking systems could be further elucidated by comparative cross-country research.
According to the study's findings, market value in Saudi Arabia is primarily determined by institutional size and capital sufficiency, but Islamic banks enjoy a noticeable and sizable valuation premium. As Saudi Arabia moves closer to the lofty objectives of Vision 2030, these findings have significant ramifications for banking strategy, regulatory framework, and the sector's positioning.

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