

# ANALYZING THE IMPACT OF MERGERS ON STOCK PRICES IN THE BANKING SECTOR: AN IMPLICATION FOR STRATEGIC MERGER PLANNING AND STAKEHOLDER COMMUNICATION

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## Abstract

**How to cite this paper:** Sayed, O. A. (2024). Analyzing the impact of mergers on stock prices in the banking sector: An implication for strategic merger planning and stakeholder communication. *Corporate & Business Strategy Review*, 5(4), 112–120. <https://doi.org/10.22495/cbsrv5i4art10>

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**ISSN Online:** 2708-4965  
**ISSN Print:** 2708-9924

**Received:** 10.01.2024  
**Accepted:** 03.10.2024

**JEL Classification:** G14, G21, G34, N25  
**DOI:** 10.22495/cbsrv5i4art10

This research delves into the intricate effects of mergers and acquisitions (M&A) on stock prices within the Saudi Arabian banking sector, employing the event study methodology (ESM) to examine both short-term and long-term impacts on stock valuations. The study meticulously calculates expected and abnormal returns (ARs) around merger events, shedding light on the significant influence these corporate actions exert on market perceptions and investor behavior. The methodology encompasses an analysis of daily stock price data before and after merger events, providing a detailed view of market reactions. Key findings reveal an immediate positive market response to merger announcements, driven by the anticipation of synergistic benefits, alongside diverse long-term stock price effects that underscore the complex relationship between initial expectations and actual merger outcomes. The research concludes that strategic merger planning and effective communication with stakeholders are crucial for realizing the anticipated benefits of mergers. By offering new insights into the sector-specific and regional dynamics that affect M&A outcomes, this study enhances understanding of the significant implications for investors, financial institutions, and policymakers engaged with the Middle Eastern financial markets.

**Keywords:** Mergers and Acquisitions, Stock Prices, Banking Sector, Saudi Arabian Financial Landscape, Event Study Methodology, Abnormal Returns, Comparative Analysis, Middle Eastern Banking Trends

**Authors' individual contribution:** The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

**Declaration of conflicting interests:** The Author declares that there is no conflict of interest.

## 1. INTRODUCTION

In the dynamic world of global finance, mergers and acquisitions (M&A) emerge as critical junctures that reshape industries, alter market dynamics, and trigger substantial financial changes. Stock price volatility following M&A events paints a complex

picture, influenced by a myriad of factors like market perceptions, specific corporate dynamics, and broader economic conditions. The effects of M&A are diverse, varying greatly between industries and regions. This heterogeneity underscores the importance of focused studies tailored to specific sectors and geographic areas. Recognizing

a significant void in the academic understanding of M&A impacts on Saudi Arabia's banking sector, this research aims to fill this critical gap, providing a nuanced and detailed analysis of how M&A activities shape the financial landscape in this influential region.

The banking sector in Saudi Arabia, a pivotal component of the Middle Eastern financial ecosystem, offers a distinctive landscape for examining the impacts of M&A. This study draws upon foundational theories and empirical research to investigate M&A effects on stock prices within this specific context, addressing a notable gap in the existing literature. While global studies (MacKinlay, 1997; Becher, 2000) have explored the general impacts of M&A, less attention has been given to the Saudi Arabian banking sector, which is influenced by unique regulatory and market conditions.

Situated at the heart of the Saudi Arabian economy, the banking sector plays a vital role in fueling economic growth and development. The ripple effects of mergers in this sector are felt far and wide, touching upon various stakeholders, including institutions, customers, employees, and the broader economic landscape. The examination of how stock prices react to mergers in this context is not merely an academic exercise but holds practical relevance for shareholders, potential investors, bank management, and regulatory bodies. Furthermore, this study represents a significant contribution to the limited literature available on M&A activities in the Middle East, adding a layer of regional specificity to our understanding of these vital corporate maneuvers.

Utilizing the event study methodology (ESM), this research aims to discern the nuanced effects of M&A events on stock prices, distinguishing between short-term and long-term impacts. This approach is supported by previous studies such as those by Agrawal et al. (1992) and more recent analysis by Sayed (2024), which highlight the variability of stock price reactions post-M&A. By focusing on the Saudi Arabian context, this study not only contributes to filling an academic gap but also provides insights with practical relevance for stakeholders within the banking sector and beyond.

The overarching aim of this study is to conduct an empirical investigation into the impact of merger events on the stock prices of the involved banks within the Saudi Arabian context. Specifically, the study sets out to:

1. Assess the short-term and long-term ramifications of the merger event on the stock prices of the involved banks.
2. Examine the presence and significance of ARs concomitant with the merger event.
3. Undertake a comparative analysis with analogous studies conducted within the realm of Saudi Arabia and beyond its borders.

The study on M&A in the Saudi Arabian banking sector addresses several gaps in existing research: most studies on M&A's impact on stock prices focus on Western contexts, leaving a lack of insight into the Middle Eastern, particularly Saudi Arabian, market. Additionally, while various sectors have been examined, the unique conditions of the banking sector, such as regulatory changes and technological advancements, require more in-depth

analysis. There is also a need to explore the mixed results found in existing literature regarding the short-term and long-term effects of M&A on stock prices. Furthermore, this study seeks to improve methodological approaches and explore a wider range of factors influencing stock prices post-M&A, beyond commonly studied aspects. The research aims to enhance understanding of M&A impacts in the specific context of the Saudi Arabian banking sector.

Our methodological approach is grounded in the ESM, a tried-and-tested statistical technique with wide applications in finance research. This methodology revolves around the calculation of expected and ARs — the latter being the discrepancy between the actual and expected returns — in the temporal vicinity of the event in question. Our dataset comprises daily stock prices of the involved banks, spanning both pre-event and post-event timeframes.

The structure of the study is meticulously organized into the following sections: Section 1 lays the foundational groundwork, encapsulating the study's preface, problem specification, importance, objectives, hypotheses, and methodologies. Section 2 delves into a detailed literature review, collating and summarizing extant studies on the impacts of M&A activities on stock prices, with particular emphasis on global trends and the specificities of the Saudi Arabian context. Section 3 outlines the data and methodologies employed in the study, delineating the data sources, selection criteria for estimation and event windows, and the statistical methods applied. Section 4 unveils the study's results, dissecting the influence of the merger on average stock prices, exploring the existence of abnormal returns (ARs), and drawing parallels with preceding studies. Finally, Section 5 brings the study to a conclusion, offering practical recommendations for stakeholders and charting a course for future research in this domain.

## 2. LITERATURE REVIEW

The literature on M&A in the banking sector provides a nuanced understanding of the financial, operational, and market dynamics that these complex corporate activities entail. Through an integrative review of recent literature, it becomes evident that the success and market reactions to M&A are shaped by a complex interplay of governance mechanisms, behavioral factors, and diversity considerations, as highlighted by Hogan and Olson (2021), López Domínguez (2021), and Tiveron et al. (2023). These studies collectively underscore the importance of governance and how it, along with competitiveness as noted by Pazarskis et al. (2023), influences post-merger performance, particularly in volatile times.

Building upon foundational research by Agrawal et al. (1992) and Jensen and Meckling (1979), which examine post-merger performance and the theoretical motivations behind firm behaviors, the literature review methodically links these insights to more focused studies on banking. For instance, Becher (2000) and Houston and Ryngaert (1994) delve into the banking sector to explore valuation effects and the success factors of bank mergers, revealing that outcomes often hinge

on the specific characteristics of the merging entities and prevailing market conditions at the time of the merger.

This review extends to regional studies such as those by Sayed (2024), which concentrate on the Saudi Arabian market, and comparisons with other regions like Pakistan by Rahman et al. (2018) and Khan et al. (2021). These contributions are crucial for understanding how regional dynamics, regulatory frameworks, and market structures impact M&A outcomes.

Methodological advancements in analyzing M&A effects, demonstrated by Dogra et al. (2021) who employ machine learning techniques, reflect the broader trend of methodological rigor discussed by Aktas et al. (2007), MacKinlay (1997), and Kothari and Warner (2007). This trend is essential for grasping the immediate market reactions to M&A announcements accurately.

The literature also tackles broader market and economic implications of M&As, with seminal studies like Brown and Warner (1985) and Malkiel and Fama (1970) discussing market efficiencies in reflecting M&A information.

International perspectives on M&A impacts are enriched by studies focusing on different geographies and market conditions, such as Indupurnahayu et al. (2022) on Islamic bank mergers and Elshani and Ramos Nogales (2020) on finance M&As in the British Isles, alongside insights from diverse banking systems by Souza and Gartner (2019).

The review identifies several gaps, particularly the under-representation of M&A impacts within the Middle East and specifically the Saudi Arabian banking sector, despite its unique market conditions. This gap provides the context for our study, which aims to add depth to the understanding of M&A impacts in this specific setting.

Hence, based on the literature reviewed the following hypotheses can be formulated:

*H1: The merger event will result in a significant deviation in the stock prices of the participating banks.*

This hypothesis is driven by the observation of immediate market reactions to M&As, as discussed in the foundational and regional studies.

*H2: The merger event will be accompanied by significant ARs.*

This is based on the documented short-term fluctuations following M&A announcements, reflecting market adjustments.

This comprehensive approach not only addresses the gaps found in the literature but also aligns the hypotheses with the nuanced complexities of M&A impacts, ensuring that the study contributes both to academic knowledge and practical understanding within the banking sector.

### 3. RESEARCH METHODOLOGY

This study has taken a rigorous approach to data collection, drawing on reliable sources to create a dataset that accurately reflects the status of stock prices for Saudi British Bank (SABB) and National Commercial Bank (NCB) before and after their merger event. The data, including stock prices over several periods, has been thoroughly compiled and cross-checked to ensure accuracy.

Our methodological approach combines descriptive and inferential statistics, allowing for a comprehensive exploration of our research question. We have employed the ESM, which is well recognized in the finance literature for examining the impact of specific events on stock prices. Additionally, we have calculated ARs, providing a nuanced understanding of the stock price reactions beyond the regular market movements.

This section aims to provide transparency to our research process and assure readers that our findings are grounded in robust and rigorous methods. This meticulous approach to data and methodology bolsters our results' reliability and contributes to the larger body of knowledge on M&A within the banking sector.

#### 3.1. Sample selection and data description

To assess the effect of mergers on the behavior of the stock price of the banking sector in the Saudi Arabia stock market (Saudi Stock Exchange (Tadawul)<sup>1</sup>), using the ESM, we rely on data covering the stock prices of the parties of the merger cases. The main index in the stock market (Tadawul All-Share Index (TASI)), which reflects the overall stock market's performance in Saudi Arabia, is selected as the benchmark index to calculate the ARs of the performance of stock prices of joint banks. We collected daily closing prices of these indexes for five months before the merger and different periods after the events. The data sources used for this study are the Saudi Arabia stock market and the website <https://www.investing.com/>.

The number of mergers that took place in the banking sector in Saudi Arabia between 1990 and 2022 is four events. The study sample was reduced to two events based on the following criteria:

1. The acquirer and the acquired banks are supposed to be listed on the Saudi Arabia Stock Exchange market.

2. The availability of data.

The merger events in the banking sector in Saudi Arabia and the sample events are shown in Table 1.

**Table 1.** The sample events of the study

Event	Acquirer bank	Acquired bank	Merger date
E1	United Saudi Commercial Bank	Cairo Saudi Bank	1 July 1997
E2	United Saudi Bank	Saudi American Bank	20 June 1999
E3	SABB	Alawwal Bank	17 June 2019
E4	NCB	Samba Financial Group (Samba)	5 April 2021

#### 3.2. Estimation, event, and post-event windows

According to MacKinlay (1997), regarding conducting an event study, the first step is to define the test window and the event window, which represents the period during which used to measure the event's impact. Then, the estimation window, which represents the pre-event period, also should be determined. If  $\tau = 0$  is the event date,  $\tau = T1 + 1$  to  $\tau = T2$  demonstrates the event window, and  $\tau = T0 + 1$  to  $\tau = T1$  represents the estimation

<sup>1</sup> <https://www.tadawul.com.sa/wps/portal/tadawul/home?locale=en>

window, while  $\tau = T2 + 1$  to  $\tau = T3$  constitutes the post-event if applicable.

Several studies have examined the effect of mergers on stock prices. Many of these studies have used ESM to investigate the impact of mergers on stock prices. ESM involves analyzing the stock price behavior around the merger announcement date and estimating ARs. The length of the estimation window and event window is a crucial element in ESM, as it affects the accuracy of the results.

In ESM, the selection of the estimation window and the event window is indeed critical, as it can significantly influence the results and interpretations of the study. The estimation window is used to calculate the expected return of stock under 'normal' conditions. In contrast, the event window is the period during which the impact of an event on stock returns is examined.

The estimation window should be long enough to provide a reliable estimate of the typical performance of a stock but not so long that it includes the effects of other events. It is typically a period before the event window to avoid contamination of the estimates by the event itself. Common lengths for the estimation window range from 120 to 250 days (Brown & Warner, 1985).

The event window, on the other hand, is typically much shorter. It might include a few days before and after the event to capture any information leakages before the official announcement and allow for any delays in market reactions. An event window that is too long might include the effects of other events, distorting the estimated impact of the event of interest.

While there is no universal agreement on the 'correct' length for these windows, most studies agree on the importance of sensitivity analysis, i.e., checking how the results change with different lengths of estimation and event windows (MacKinlay, 1997). It is also essential to consider the specific context of the study and the nature of the event when choosing the lengths of these windows (Kothari & Warner, 2007).

The choice of the estimation and event windows depends mainly on the nature of the event being studied and the specifics of the market in which the firms operate. Given the scope of this study, which is the effect of a merger event on the stock prices of two banks in Saudi Arabia, a careful balance between the granularity of data and its reliability needs to be struck.

For the estimation window, a period of 120 days before the merger event is typically used in financial studies (Brown & Warner, 1985). This duration allows for a reliable estimation of the stock's 'normal' return without incorporating the event's effects. It is also long enough to be robust against temporary market fluctuations but not excessively long to introduce other event impacts.

The event window, on the other hand, could be shorter. An event window of 30 days (15 days before and 15 days after the merger announcement) could provide a detailed look at the immediate market reactions to the merger. This includes capturing any information leakage before the official announcement and allowing for any delays in market reactions post-announcement. However, given the magnitude and complexity of merger

events, especially in the banking sector, it might also be beneficial to have additional event windows extending to 60, 90, and 120 days post-merger to capture any delayed market reactions and the longer-term impact of the merger on stock prices.

### 3.3. Estimating normal return model

The market model, which defines theoretical return as a linear function of the return of the market index, is the most frequently used. Based on this model, the stock return is regressed against the return of the market index, so the model is given as:

$$R_{e,t} = \alpha_e + \beta_e R_{m,t} + \varepsilon_{e,t} \quad (1)$$

where,  $\alpha_e$  and  $\beta_e$  are the parameters of the regression equation,  $\varepsilon_{e,t}$  represents the statistical error with zero mean and constant variance, i.e.,  $\varepsilon_{e,t} = 0$  and  $Var(\varepsilon_{e,t}) = \sigma_e^2$ . AR is the difference between observed return and expected return in the absence of the event (Martinez, 2002). One can measure and analyze the ARs based on the parameter estimates of the market model of Eq. (1). The estimated model corresponding to Eq. (1) is given as:

$$R_{e,t} = \ln\left(\frac{P_{e,t}}{P_{e,t-1}}\right) \quad (2)$$

and

$$R_{m,t} = \ln\left(\frac{P_{m,t}}{P_{m,t-1}}\right) \quad (3)$$

where  $R_{e,t}$ ,  $R_{m,t}$  represent the observed return of the stock  $e$  on day  $t$  and the market return on day  $t$ , respectively,  $P_{e,t}$ ,  $P_{m,t}$  refer to the closing price of stock  $e$  on day  $t$  and the market closing price on day  $t$  respectively and  $P_{e,t-1}$ ,  $P_{m,t-1}$  refer to the closing price of stock  $e$  and the market closing price the previous day respectively.

Abnormal return (AR) is the yield gap between the observed and expected returns in the absence of the event (Martinez, 2002). One can measure and analyze ARs based on the market model parameter estimates. AR for stock  $e$  at time  $t$  ( $AR_{e,t}$ ) is, therefore, defined as:

$$AR_{e,t} = R_{e,t} - E(R_{e,t}) \quad (4)$$

where  $E(R_{e,t})$  is the expected return if the event has not occurred. Whereas the estimated model corresponding to the Eq. (4) is given as:

$$E(R_{e,t}) = \hat{\alpha}_e + \hat{\beta}_e R_{m,t} \quad (5)$$

where  $\hat{\alpha}_e$  and  $\hat{\beta}_e$  are estimates of the true parameters obtained via an ordinary least squares regression. AR for stock  $e$  at time  $t$  in Eq. (4) can be rewritten as:

$$AR_{e,t} = R_{e,t} - (\hat{\alpha}_e + \hat{\beta}_e R_{m,t}) \quad (6)$$

The overall impact is evaluated by aggregating ARs for the  $n$  events of the sample. This enables the average AR at time  $t$  ( $ARM_t$ ) to be determined as:

$$ARM_t = \frac{1}{n} \sum_{e=1}^n AR_{e,t} \quad (7)$$

When the impact is determined over several days, mean ARs are cumulative ( $ARMC_{t_1,t_2}$ ):

$$ARMC_{t_1,t_2} = \sum_{t=t_1}^{t_2} ARM_t \quad (8)$$

where,  $t_1, t_2$  is the period of the event window.

To determine whether  $ARMC_{t_1,t_2}$  is significant, the test statistic on any day  $t$  in the event window for all  $n$  stocks is constructed:

$$\frac{1}{\sqrt{n}} \sum_{e=1}^n ARMC_{t_1,t_2} \quad (9)$$

The study analyzing M&A in the Saudi Arabian banking sector is marked by its unique methodological approach. It extends the analysis period significantly, covering five months before and various periods after M&A events, providing a more thorough understanding of both immediate and longer-term effects on stock prices. The research adapts the ESM specifically for the Saudi Arabian context, employing a refined technique that includes the calculation of ARs. This allows for a more accurate isolation of M&A impacts from general market movements. Additionally, the study integrates both local market data from the Tadawul stock market and global data sources, ensuring a comprehensive analysis that is both contextually grounded and globally informed. The selection of study samples is done with rigorous criteria, focusing on the most relevant merger events to ensure depth and relevance in the findings.

Furthermore, the study emphasizes thorough data validation, employing meticulous cross-checking of data from reliable sources, enhancing the credibility of the results. This combination of extended timeline, tailored methodology, and careful data handling contributes significantly to a nuanced exploration of M&A impacts in the Saudi banking sector.

There are several alternative methodologies including case study analysis, comparative event studies, regression analysis, and surveys and interviews, each offering unique perspectives on the impacts of M&A. However, despite their respective strengths, we chose the ESM for its robust quantitative approach to measuring market reactions to specific M&A events within the Saudi Arabian banking sector. ESM's ability to calculate ARs provides precise insights into the market's valuation of mergers, making it particularly suited for our study's objectives and ensuring comparability with existing literature. This decision reflects a balance between methodological rigor and the specific research context, offering clear justification for our methodology choice.

## 4. RESULTS AND DISCUSSIONS

This section presents a detailed analysis of the results derived from our study on the impact of mergers on stock prices in the banking sector, specifically focusing on the Saudi Arabian market. This research was carried out to provide insights into how merger events affect stock prices in the short and long run, further contributing to the existing body of knowledge on corporate M&A.

### 4.1. Descriptive statistics

The results shown in Table 2 mentioned the mean and the standard deviations of the stock prices in the banking sector of Saudi Arabia, with a particular focus on the SABB and the NCB as acquirer banks.

**Table 2.** Mean and standard deviations for stock prices before and during the event period

Periods	SABB		NCB	
	Mean	Std. dev.	Mean	Std. dev.
Pre-event period (120 days)	37.479	2.173	44.569	3.645
30 days after the event period	40.236	1.033	54.620	1.131
60 days after the event period	37.503	3.604	54.755	1.426
90 days after the event period	35.218	4.419	55.533	1.969
120 days after the event period	34.883	3.927	56.777	2.792

When observing the mean stock prices, both acquirer banks show a significant increase immediately following the merger (30 days after the event). This might be attributed to the initial optimism around the merger, the potential for synergies, and the anticipation of improved efficiency and profitability, common reactions observed in the financial markets post-merger (Malatesta, 1983; Eckbo, 1992).

However, the paths of the two banks become different in the subsequent periods. For SABB, stock prices declined over the next 90 days, which could indicate that the anticipated benefits of the merger were not immediately realized. The increase in standard deviation over time suggests increased

uncertainty or volatility around the stock's performance. On the other hand, NCB's stock prices continued to rise 120 days post-merger, with only a slight increase in standard deviation, indicating stable growth. This could reflect a positive market response to the perceived success of the merger.

This is in line with earlier research indicating that stock market reactions to mergers can vary and depend on a range of factors, including the deal's specifics, the strategic fit between the firms, and the broader market context (Aktas et al., 2007).

When comparing these results to similar studies in Saudi Arabia, Sayed (2024) researched the impact of mergers on the stock prices of firms in the Saudi insurance sector. The study revealed

an initial positive reaction followed by a period of correction, which is consistent with what we observe for SABB but not for NCB.

Internationally, a study on the USA banking industry by Becher (2000) also reported mixed results, similar to this study. A substantial amount of literature on M&A in various sectors and regions suggests that a merger's success or failure in enhancing shareholder value is context-specific (Bruner, 2002).

#### 4.2. Event study results

The daily ARs during the event window for SABB and NCB, as illustrated in Table 3, show some interesting patterns and raise several points that may be important for understanding the impact of mergers on the stock prices in the Saudi banking sector.

For SABB, the most significant drop in AR (-0.047) is observed on day three, which is significant at the 0.01 level. This implies a strong statistical correlation, potentially suggesting an adverse market reaction to the merger news. This is followed by a significant increase on day seven, which may suggest a market correction or some positive news or event influencing the market sentiment. On the other hand, NCB's stock does not experience any significant changes at the 0.01 or 0.05 level but observes significant ARs at the 0.10 level on day zero and day five, both in the negative direction. It may imply that the immediate market reaction to the merger news was not decisive for NCB, but the significant negative ARs could suggest a slightly negative sentiment. Interestingly, NCB experienced a significant positive AR on day eight, which might indicate a reversal in sentiment or other factors at play.

**Table 3.** Daily ARs during the event window

Event day	SABB		NCB	
	AR	t-stat.	AR	t-stat.
0	-0.028	2.339	-0.0210	1.7749*
1	0.008	0.685	-0.0075	0.6368
2	0.010	0.868	-0.0005	0.0417
3	-0.047	3.8711*	-0.0013	0.1112
4	-0.0018	0.1480	-0.0138	1.1641
5	-0.0044	0.3676	-0.0203	1.7146*
6	0.0188	1.5559	-0.0113	0.9523
7	0.0291	2.4104	0.0013	0.1100
8	0.0191	1.5828	0.0201	1.6917*
9	-0.0209	1.7315*	-0.0113	0.9535

Note: Table 3 presents the daily abnormal returns (AR) for the event window around the merger date. Significance levels are marked as follows: \* at 10%, \*\* at 5%, and \*\*\* at 1%. The ARs reflect the market reaction to the merger announcement, with negative and positive returns representing market pessimism and optimism, respectively.

These results aligned with Sayed (2024) who explored the effect of M&A activities on stock returns in the Saudi market and observed noticeable impacts of M&A announcements on stock prices. The current study's findings, particularly the fluctuating AR for SABB and NCB during the event window, align with these studies. This suggests that the Saudi market responds sensitively to M&A news, exhibiting considerable variability in stock prices in response to merger events.

Becher's (2000) study indicated that bank mergers lead to valuation effects. This is mirrored in the current study, especially for SABB, where significant negative ARs on specific days, such as day three, suggest a strong negative market reaction to the merger news. Such findings align with Becher's observations that mergers can significantly impact the valuation of the involved entities.

**Table 4.** Cumulative abnormal returns (CAR) during the event window

Periods	SABB		NCB	
	CAR	t-stat.	CAR	t-stat.
30 days after the event period	0.032	0.357	0.138	2.147
60 days after the event period	0.197	1.474	0.173	2.171
90 days after the event period	-0.106	-0.655	0.212	2.085
120 days after the event period	-0.132	-0.672	0.226	2.079

Note: Table 4 shows the cumulative abnormal returns (CAR) for various periods after the merger (30, 60, 90, and 120 days). CAR measures the aggregate market reaction over time. Significance levels are marked as follows: \* at 10%, \*\* at 5%, and \*\*\* at 1%. A positive CAR indicates a favorable market reaction over the specified period, while a negative CAR suggests a market correction.

Table 4 provides a detailed overview of the impact of mergers on the stock prices in the banking sector in Saudi Arabia, particularly for the SABB and the NCB as acquirer banks. CAR is used to reflect the market's adjustment to the new information that the merger introduces.

For the SABB, the CAR increased 30 and 60 days after the merger, which could indicate the market's positive reaction to the merger announcement. However, these changes were not statistically significant. The negative CAR, 90 and 120 days after the merger, suggests market correction as the anticipated benefits did not materialize or other factors negatively affected the stock's performance.

For NCB, the CAR remained positive and statistically significant for the entire period observed, suggesting that the market's positive reaction to the merger was sustained. This could be attributed to a successful integration process,

synergy realization, or improved market confidence in the merged entity's future profitability.

The results of the current study, showing fluctuating CAR for SABB and NCB over various periods post-event, align with these findings, suggesting the Saudi market's sensitivity to M&A news. For instance, NCBs CAR shows a prolonged positive trend even 120 days after the event, indicating a sustained positive market reaction, which is consistent with the sensitivity observed in Sayed's (2024) study.

Sindi et al. (2021) highlighted the unique influence of geopolitical and economic dynamics in the Middle East and North Africa (MENA) region on merger outcomes. In the current study, the prolonged positive CAR for NCB, even 120 days after the event, might reflect these regional factors. This extended positive market response could be attributed to the specific economic and geopolitical

context of the MENA region, as suggested by Sindi et al. (2021).

Souza and Gartner (2019), Khan et al. (2021), and Elshani and Ramos Nogales (2020), focusing on various regions, showed diverse market reactions to bank M&As. The current study's results, especially the contrasting ARs and CARs for SABB and NCB, resonate with this diversity, suggesting that market reactions can significantly vary based on the specifics of each merger and the regional economic context.

The observed immediate increase in stock prices following merger announcements for SABB and NCB aligns with theoretical expectations and parallels findings from similar studies (Malatesta, 1983; Eckbo, 1992). This initial surge likely reflects market optimism regarding potential synergies and efficiency gains. However, the subsequent performance divergence between SABB and NCB underscores the complexity of post-merger integration and its varied impacts on stock valuation. Such outcomes highlight the intricate dynamics at play, echoing the multifaceted nature of M&A discussed in the literature (Aktas et al., 2007; Bruner, 2002).

The significant fluctuations in daily ARs, particularly the negative impact observed on day three for SABB and the mixed results for NCB, suggest nuanced investor reactions to merger announcements. These findings contribute to the broader debate on market efficiency and the assimilation of new information, as discussed by Malkiel and Fama (1970) and Brown and Warner (1985). Furthermore, the persistent positive CAR for NCB, even 120 days post-merger, offers a compelling case for the long-term value creation potential of well-executed mergers, challenging the notion of inevitable post-merger underperformance.

These results not only validate some of the expected theoretical outcomes but also reveal contradictions and nuances that merit further investigation. For instance, the contrast in long-term stock performance between SABB and NCB may reflect differing strategic focuses, integration processes, or market perceptions, underscoring the need for a deeper dive into the specific factors driving these outcomes.

In sum, the results and analysis of this study offer valuable insights into the short-term and long-term impacts of mergers on stock prices within the Saudi Arabian banking sector. By weaving together empirical findings with theoretical discussions, this research contributes to a more nuanced understanding of merger outcomes, providing a foundation for future studies and practical considerations for stakeholders in the M&A domain.

#### 4.3. Hypotheses testing

The findings strongly support *H1*, as evident from the descriptive statistics presented in Table 2. The immediate increase in mean stock prices for both SABB and NCB following their respective mergers clearly indicates significant deviations in stock prices triggered by the merger events. This reaction likely stems from the market's response to anticipated benefits from the mergers, such as synergies and operational efficiencies.

The event study results, detailed in Table 3, offer substantial support for *H2*. The daily ARs for SABB and NCB showcase significant fluctuations during the event window, affirming the hypothesis that merger events elicit significant ARs. This observation aligns with the theoretical expectation that M&A announcements can lead to investor reassessment of the merged entities' value, resulting in ARs.

The study meticulously tracks the stock price movements and ARs associated with merger events in the Saudi Arabian banking sector, providing empirical support for the hypothesized impacts. For *H1*, the immediate impact on stock prices post-merger confirms the market's sensitivity to such corporate events, validating the expectation of significant price deviations. Similarly, the support for *H2* is found in the detailed examination of ARs, underscoring the market's reaction to new information and revaluation of the merging banks' future prospects.

These findings not only corroborate our initial hypotheses but also enrich our understanding of the dynamic market reactions to mergers in the banking sector. By linking these outcomes directly to our hypotheses, we affirm the relevance and validity of our theoretical framework and empirical analysis. This direct association between hypotheses and results enhances the study's contribution to the literature on M&A impacts, specifically within the context of the Saudi Arabian banking sector.

#### 5. CONCLUSION

The conclusion of the study on the impacts of mergers on the stock prices of the Saudi Arabian banking sector, focusing particularly on the SABB and NCB as acquirers, offers several insights into the multi-faceted effects of these financial events. The analysis suggests that, in the short term, market reactions typically show an initial surge in stock prices, reflecting investor anticipation of the benefits such as operational efficiencies and potential profitability improvements. However, the study also captures a decline in SABB's stock prices over time, hinting at possible integration challenges or unmet expectations, contrasting with NCB's consistent stock price rise that may indicate the successful realization of merger benefits.

Further, the research identifies a complex pattern of daily ARs, with initial negative responses that shift to positive as the market adjusts to new information and the broader context of the merger. This underscores the nuanced investor behavior in reaction to mergers.

The study proposes several practical recommendations for stakeholders in the banking sector, which include conducting comprehensive due diligence and strategic planning, investing in effective integration processes, maintaining robust investor relations, enhancing risk management frameworks, and leveraging technological advancements during mergers for digital transformation. These strategies are aimed at maximizing the benefits and minimizing the risks associated with M&A.

Despite its detailed analysis, the study acknowledges certain limitations, such as its focus

solely on the banking sector within Saudi Arabia, reliance on short-term impact data, and a limited number of observed merger events, which may not fully represent the broader implications of mergers in the sector. To build on these findings, future research could explore the effects of mergers in different sectors or regions, assess long-term financial outcomes, include qualitative assessments of mergers' impacts on corporate culture and

management, and delve into the roles of governance and technological advancements in mergers.

This study provides a foundation for understanding the specific impacts of mergers in the Saudi Arabian banking sector and suggests multiple directions for future research to expand the knowledge of M&A within the global financial landscape.

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