Global Journal of Economics and Business (GJEB)

Volume.14, Issue.3 pp: 251-262 Article 5
April (2024)

The Impact of M&A on Acquirers' Financial Performance Across the Banking Industry - Case Study of the Gulf Cooperation Council 2017–2022

تأثيرعمليات الاندماج والاستحواذ على الأداء المالي في القطاع المصرفي- دراسة حالة لمجلس التعاون الخليجي 2017 - 2022م

Abdulrahman Atllah Alharbi

Assistant Professor, Department of Accounting, College of Business Administrations, Taif University, Kingdom of Saudi Arabia
a.ataa@tu.edu.sa

Accepted قبول البحث	Revised مراجعة البحث	Received استلام البحث
2024/4/18	2024/3/5	2024 /1/11

DOI: https://doi.org/10.31559/GJEB2024.14.3.5

www.refaad.com

Global Journal of Economics and Business (GJEB)

المجلة العالمية للاقتصاد والأعمال

Journal Homepage: https://www.refaad.com/Journal/Index/2

E-ISSN 2519-9293 | P-ISSN 2519-9285

The Impact of M&A on Acquirers' Financial Performance Across the Banking Industry - Case Study of the Gulf Cooperation Council 2017–2022

تأثير عمليات الاندماج والاستحواذ على الأداء المالي في القطاع المصرفي- دراسة حالة لمجلس التعاون الخليجي 2017- 2022م

Abstract:

Objectives: The paper attempts to empirically assess the consequences of mergers and acquisitions (M&A) on acquirer banks' post-acquisition financial performance amongst the member banks of the Gulf Cooperation Council (GCC) region. This study explores M&A's impact on critical financial indicators such as profitability, operational efficiency, asset quality, and risk management, from the perspective of GCC banks operating from 2017 to 2022.

Methods: A secondary data design was employed to better ascertain how acquirers in the GCC banking industry perform after M&A. The design is characterized by collecting the performance data and conducting statistical analyses (descriptive analytics, and Kolmogorov-Smirnov, Shapiro-Wilk, and Wilcoxon Signed-Rank tests) using the SPSS tool to draw inferences.

Conclusion: The research found that there is a negative impact on the performance measures of the acquirer following an M&A. However, with the exception of the size and age of the firm, this impact is statistically insignificant. To understand the performance measures that are impacted by the M&A. This research also explores the various external factors that influence the impact of M&A on performance measures. The insights from this study can be used by stakeholders when acquiring organisations to obtain a clear understanding of the possible impacts of an M&A on the organisations' performance. This paper contributes to exploring the diverse factors that may influence the impact of M&A on the performance of the acquirer, including the size of the sample, transaction model, accounting policies, and observation period. This differentiates this study from the majority of the existing research where the focus is on performance only.

Keywords: *Mergers and Acquisitions; Banking; Synergy; the Gulf Cooperation Council.*

الملخص:

الأهداف: تحاول هذه الورقة إجراء تقييم تجريبي لتوضيح عمليات الاندماج والاستحواذ على الأداء المالي للبنوك المستحوذة بعد الاستحواذ بين البنوك الأعضاء في منطقة مجلس التعاون الخليج وتستكشف هذه الدراسة تأثير عمليات الاندماج والاستحواذ على المؤشرات المالية الهامة مثل الربحية والكفاءة التشغيلية وجودة الأصول وإدارة المخاطر من وجهة نظر البنوك الخليجية العاملة من عام 2017 إلى عام 2022.

المنهجية: تم تصميم واستخدام البيانات الثانوية للتأكد بشكل أفضل من أداء المستحوذين بعد عمليات الاندماج والاستحواذ في القطاع المصرفي في دول مجلس التعاون الخليجي، ويتميز التصميم بجمع بيانات الأداء وإجراء التحليل الإحصائي (التحليلات الوصفية، واختبارات Kolmogorov-Smirnov، Shapiro-Wilk، وWilcoxon Signed-Rank) باستخدام أداة SPSS لاستخلاص الاستدلالات.

الخلاصة: توصل هذا البحث إلى وجود تأثير سلبي على مقاييس أداء الشركة المستحوذة بعد عملية الدمج والاستحواذ ومع ذلك باستثناء حجم الشركة وعمرها فإن هذا التأثير غير مهم من الناحية الإحصائية، ولفهم مقاييس الأداء التي تتأثر بعمليات الاندماج والاستحواذ وضح هذا البحث أيضًا العوامل الخارجية المختلفة التي تؤثر على تأثير عمليات الاندماج والاستحواذ على مقاييس الأداء ويمكن لأصحاب المصلحة تطبيق الأفكار الواردة في هذه الدراسة في المنظمات المستحوذة للحصول على فهم واضح لتأثير عمليات الاندماج والاستحواذ على أداء المنظمات و تساهم هذه الورقة في استكشاف العوامل المتنوعة التي قد تؤثر على تأثير عمليات الاندماج والاستحواذ على أداء الشركة المستحوذة بما في ذلك حجم العينة ونموذج المعاملة والسياسات المحاسبية وفترة المراقبة وهذا ما يميز هذه الدراسة عن غالبية الأبحاث الحالية حيث ينصب التركيز على الأداء فقط.

الكلمات المفتاحية: *عمليات الاندماج والاستحواذ؛ الخدمات المصرفية؛ نظرية التآزر؛ مجلس التعاون الخليجي.*

1 Introduction

1.1 Background

In the wake of the financial crisis of 2008, the financial services industry has been undergoing rapid changes, both in terms of regulatory policies and innovation (Hughes et al., 2022). Innovation has emerged across two dimensions: the creation of new financial products and the development of new technologies (Wang et al., 2021). According to Thakor (2020), new-age financial services firms are driving product innovation, and whilst banks are also working on various innovations, they are unable to match the new-age firms in terms of accessibility, user-friendliness, and cost (Boot et al., 2021). Thus, to become more innovative, as identified by Austin and Dunham (2022), banks are forming strategic alliances through M&A (mergers & acquisitions) in order to achieve growth.

Comprehending the impacts of M&A in financial services on the acquirer is therefore essential. Accordingly, this research aims to understand these impacts by focusing on the banking industry in the GCC (Gulf Cooperation Council) countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates).

1.2 Significance of the Research

According to Benny (2022), banks are pivotal to the GCC nations, as the banking industry supports the regions' growth, which is largely driven by the oil & gas industry and several initiatives in the non-oil sector as part of various governments' focus on diversifying the economy. Hence, it is vital to comprehend how banks in the GCC performed after acquiring other firms in the financial services industry. This is accomplished by observing the deals that were made over the period 2015–2021.

1.3 Research Question and Objectives

Based on insights from the literature review, the research question addressed in this paper is:
"What is the impact of M&A on acquirers' financial performance across the banking industry in the GCC?"
To answer the above research question, the following objectives are set:

- To understand the impact of M&A on the acquirers' ROA across the banking industry in the GCC.
- To understand the impact of M&A on the acquirers' Net Profit Margin across the banking industry in the GCC.
- To understand the impact of M&A on the acquirers' Current Ratio across the banking industry in the GCC.
- To understand the impact of M&A on the acquirers' Asset Quality across the banking industry in the GCC.
- To understand the impact of M&A on the acquirers' Asset Size across the banking industry in the GCC.
- To understand the impact of M&A on the acquirers' Age across the banking industry in the GCC.

2 Literature Review

2.1 Drivers of M&A in the Banking Industry

The banking industry has witnessed a wave of mergers and acquisitions in recent years, driven by many factors. Synergy Theory supposes that M&A may assist firms in achieving growth by combining resources, entering new markets, and creating operational efficiency (Draney et al., 2019). However, alternative theoretical perspectives offer additional explanations for the drivers of M&A in the banking sector. Market power theory suggests that M&A increase market concentration and provide banks with a more favourable competitive environment, which enables them to earn more profit through raised prices and reduced costs (Focarelli & Panetta, 2003). The resource-based view highlights the role of M&A in acquiring strategic resources, capabilities, and expertise, unavailable internally, such as advanced technology, specialised human capital, or established customer bases (Wernerfelt, 1984). Agency theory acknowledges that managerial intentions behind M&A may not always be driven by shareholder value maximisation, as is typically the case, but also by other motives like dynasty building, personal recognition, or compensation-related incentives

(Jensen). Regulatory changes, such as capital requirements and risk management guidelines, can also prompt banks to pursue M&A to achieve compliance and strengthen their capital positions. In the case of the GCC banks, increases in M&A have been driven by technological disruptions, including the rise of fintech firms and digital banking, which have necessitated that banks improve their innovative capabilities and adapt to changing consumer demands (Liu & Wang, 2020). Furthermore, domestic banks are forced to devise different strategies to achieve this, such as diversifying their geographic locations within the GCC, and scaling up their businesses through global M&A (Tao et al., 2022). Furthermore, consolidation within the GCC banking industry has been driven by the quest for economies of scale, cost optimisation, and the need to be able to offer a broader range of products and services (Lee et al., 2021). These factors, coupled with the region's economic growth and regulatory changes, are why GCC banks are now using M&A as a strategy to grow, innovate, and gain a competitive edge in the market.

2.2 The Impact of M&A on the Acquirer

The effects of consolidation and acquisitions on firms remain the cause of controversies in the literature, and currently there is no generally accepted view about their effects on companies' performance. This confusion is mirrored in the variability of results across research, which can be attributed to different measurement methods across studies, contextual variation, and the high dimensionality of performance. The literature on M&A has monitored and widely investigated profitability ratios, such as return on assets (ROA) and net profit margin. Some studies argue that synergy persists, with organisations' profitability improving because of economies of scale in procurement and resource substitutions (Aggarwal & Garg, 2019; Akhavein et al., 1997). Others, however, have found that the predicted synergies might not be readily apparent post-acquisition (Syukur & B). The inconsistent findings might be related to differences in sample subjects, assessment periods, and the techniques used to control for confounding factors. Both empirical studies and theoretical models draw widely differing conclusions about the importance of liquidity in the context of M&A. According to Alhenawi and Stilwell (2017) one line of thought suggests that M&A can lead to resource liquidity by providing access to more resources and diversifying cash flows. More critical views suggest that the risk of liquidity tightness caused by increased cash inflows, integration costs, and balance sheet reorganisation (Shah & Khan, 2017; Rashid & Naeem, 2017), after the merger may lead to shareholder empowerment and reduction of inefficient units. These differing arguments evidence a need for more specialised approaches to liquidity behaviour in the M&A economic environment. The financial ratio is, arguably, the performance measure that has given rise to the most variable results in earlier studies. Some researchers consider that the drive to M&A leads to debt accumulation from borrowings for purchasing and the takeover of new assets (Reddy et al., 2019). In contrast, others argue that it results in the lowering of leverage via improved funding position and re-debt equation (Alhenawi & Stilwell, 2017). These divergent results could be due to loadings in the acquirer's previous leverage levels, industry conditions, and regulatory policies. A bank's profitability in the banking industry depends on the quality of the assets, which is the ratio of the loans not performing to the total loans. Even though those studies on M&A activity do document an effect on asset quality, there are very few that have been specifically scoped to examine this measure in an exclusive way (Akhtar & Nosheen, 2022). The study has revealed a gap in the literature, and thus points to the need for further research, as asset quality is one of the principal determinants that banks rely on to judge their financial stability and risk. The divergences in the existing body of literature place stress on conducting site-specific studies that can accommodate elements such as the type of technology, banking-specific aspects, regulation, culture, as well as economic factors that may affect the performance of an M&A transaction. By taking research methodologies to an evaluative level and using theories such as resource-based view, agency theory, or industry-specific aspects, researchers can, therefore, develop a more comprehensive understanding of the effect of M&A on the performance of the acquiring banking sector.

2.3 Theoretical Framework

From the discussion above, it can be inferred that the following factors need to be focused on to understand the impact of M&A on the performance of an acquiring bank:

Return on Assets (ROA): This is calculated as Net Profit/Asset Size and indicates how profitably the assets are being utilised in a firm (Sharma, 2020).
Net Profit Margin: This is Net Profit/Sales and is a measure of the profitability of a business (Sharma, 2020).
Current Ratio: This is Current Assets/Current Liabilities. The ratio depicts the short-term liquidity of the firm, which is the ability to meet its current obligations (Sharma, 2020).
Financial Leverage: This is given by Debts/Total Assets, and indicates the long-term solvency of the firm, or its ability to meet its debt (Sharma, 2020).
Asset Quality: This is Non-Performing Loans/Total Loans and reflects the quality of loans that are being offered by a bank (Sharma, 2020).

Additionally, in accordance with Akhtar and Nosheen (2022), two additional variables, the age of the firm and the size of the firm (asset size), are included in the research. Several other aspects not discussed in the literature review that may be impacted by an M&A are also highlighted.

2.4 Hypotheses

Based on insights from the literature review, the main hypothesis of this study is:
H0: There is no significant impact of M&A on the acquirers' financial performance across the banking industry in the GCC.
Accordingly, the sub-hypotheses are:
H0a: There is no significant impact of M&A on the acquirers' ROA across the banking industry in the GCC.
H0b: There is no significant impact of M&A on the acquirers' Net Profit Margin across the banking industry in the GCC.
H0c: There is no significant impact of M&A on the acquirers' Current Ratio across the banking industry in the GCC.
H0d: There is no significant impact of M&A on the acquirers' Asset Quality across the banking industry in the GCC.
H0e: There is no significant impact of M&A on the acquirers' Asset Size across the banking industry in the GCC.
H0f: There is no significant impact of M&A on the acquirers' Age across the banking industry in the GCC.

3 Methodology

Whilst Akhtar and Nosheen (2022) served as the primary source for research on the topic and variable identification, their methodology has several limitations that must be addressed in the current research. However, there is very little research on the most appropriate methodology to address the current research questions, and therefore, that followed by Akhtar and Nosheen (2002) is used with some modifications based on insights from other studies.

3.1 Sample Selection

Over the period 2015–2021, out of 56 listed banks across six GCC countries, a total of 30 banks acquired a financial services business. According to Kwak and Kim (2017), a sample size of 30 or more results in a studentised sampling distribution approximately following the standard normal distribution, and therefore, any assumption about the population distribution becomes meaningless, according to the central limit theorem. Hence, the sample size of 30 is deemed adequate for this study. The sample of banks used in the study is presented in Table 1 below.

Table 1: Sample for the Study

Organisation Name	Country Origin	Acquisition Year
Al Salam Bank B.S.C.	Bahrain	2020
Arab Banking Corporation B.S.C.	Bahrain	2021
Bank of Bahrain and Kuwait B.S.C.	Bahrain	2017
National Bank of Bahrain B.S.C.	Bahrain	2019
Arab National Bank	Saudi Arabia	2021
Riyad Bank	Saudi Arabia	2021
Saudi British Bank	Saudi Arabia	2018
Saudi National Bank	Saudi Arabia	2021
Abu Dhabi Commercial Bank	United Arab Emirates	2021
Bank of Sharjah	United Arab Emirates	2020
Commercial Bank of Dubai	United Arab Emirates	2021
Dubai Islamic Bank	United Arab Emirates	2021
First Abu Dhabi Bank	United Arab Emirates	2020
GFH Financial Group	United Arab Emirates	2020
Mashreq Bank	United Arab Emirates	2021
National Bank of Ras Al-Khaimah	United Arab Emirates	2017
Kuwait International Bank	Kuwait	2019
Kuwait Finance House	Kuwait	2021
Boubyan Bank	Kuwait	2020
Bank Dhofar	Oman	2019
Bank Nizwa	Oman	2021
HSBC Bank Oman	Oman	2019
National Bank Oman	Oman	2019
Bank Muscat	Oman	2019
Sohar Int Bank	Oman	2021
QNB	Qatar	2015
Doha Bank	Qatar	2015
International Islamic Bank	Qatar	2015
Masraf Al Rayan	Qatar	2021
Lesha Bank	Qatar	2021

Akhtar and Nosheen (2022) used a sample period of 3 years prior and post an M&A. A fundamental issue with this sample period is that over 7 years (-3 to +3), there is a possibility that several business-specific and external developments occur that may also impact the performance of the business and the effect of M&A may be nullified. This possibility has been validated by Ang and Zhang (2014), who found that long-horizon event studies work well when the sample size is approximately 1,000. However, a sample size of less than 200 results in low power for various tests across a five-year horizon period. Moreover, long-horizon event studies with small sample sizes may require a wide range of tests, and the outputs must be interpreted with utmost care as low cross-correlation amongst independent variables may result in over-rejection of the null hypothesis (Ang & Zhang, 2014). Therefore, a sample period of 2 years (one year prior and the current year of M&A) has been employed herein to alleviate the effect of externalities.

3.2 Data Collection

This research is based on secondary data provided by two primary sources. Firstly, we monitored investment activity and getting involved in dealmaking to get data on M&A deals in the GCC banking industry from 2017 to 2022. Previous studies (Ferrati & Muffato, 2020) have shown Crunchbase to be dependable in their services. Over the years, a range of M&A deals have been identified from different industries and regions and according to specific criteria, including time and type of deal. Secondly, data for given variables like ROA, current ratio, financial leverage, net profit margin, asset quality, and firm age and size will be mined from the Morningstar Database, which is a trusted source for financial data. According to researchers (Hines, 2020; Schmelzer, 2020), their safety is always guaranteed. The pre-and post-acquisition stage data was collected to

analyse the M&A effect. To keep the figures consistent, the financial data from different reporting currencies was converted according to the exchange rate at the last date of the reporting period. Additionally, the natural logarithm of firm size and age was used, which aligns with Akhtar and Nosheen's (2022) method of limiting the potential biasing effect of extreme values. An adaptable data cleaning protocol was applied to process missing values or abnormal cases, leading to an error-free data set.

3.3 Data Analysis

The first step in the analysis was a descriptive analysis to understand the variables; however, few inferences can be drawn at this stage.

Akhtar and Nosheen (2022) performed a t-test to ascertain whether there is a difference between variables before and after an event of interest; however, a prerequisite of the t-test is normality, making an alternative methodology necessary if normality cannot be assumed. Alsamhi et al. (2022) conducted a study where the impact of an event (COVID-19) on different parameters of firms in India was analysed, and this methodology has been implemented here. During the first stage, normality is tested via the Kolmogorov-Smirnov and Shapiro-Wilk tests using the SPSS tool based on insights from Berg (2022).

3.4 Hypothesis Test

Akhtar and Nosheen (2022) employed the GMM (Generalised Method of Movement) approach for hypothesis testing. Whilst the GMM method is the most appropriate approach for this kind of study, Evans (2018) has highlighted that GMM results in large biases and inefficiencies when small sample sizes are analysed.

Therefore, as employed by Alsamhi et al. (2022), a Wilcoxon Signed-Rank test was used for hypothesis testing using SPSS. According to Saunders et al. (2015), this test offers an advantage over other tests in that the data being normally distributed is not a prerequisite. Thus, the Wilcoxon Signed-Rank test facilitates an understanding of the factors that are significantly impacted by an M&A transaction.

4 Results

The association between the M&A deals' performance and certain acquirer metrics, which is shown by the descriptive statistics, needs to be considered not only theoretically, but also in terms of their practical significance, as the results will be explained in the context of their implications for all stakeholders, including the banks themselves, regulators, and investors. For illustration, if the adverse effects of profitability and asset quality are statistically significant, then these issues should be addressed, including the possible reasons for their occurrence and the consequences that could influence the operations, risk management, and business sustainability of the acquirer banks. Based on the literature review and research method, the findings are analysed and presented below.

4.1 Descriptive Analysis

The familiarity with data is increased by conducting a descriptive analysis, as shown below in Table 2.

Table 2: Descriptive Statistics of Banks in GCC

Variables	N	Min	Max	Mean	Median	SD	Skewness	Kurtosis
ROA_ pre-M&A	**30**	-.88	1.21	.0177	.0100	.27808	1.667	15.607
ROA_ post M&A	**30**	-.02	1.37	.780	.0100	.27053	4.357	19.581
Net Profit_ pre-M&A	**30**	-.86	5.97	.4827	.3800	1.0783	4.773	25.226
Net Profit_ post M&A	**30**	-1.01	.71	.3250	.3800	.28941	-3.472	16.110
Current ratio _ pre-M&A	**30**	.44	3.03	1.3913	1.1550	.63819	1.677	2.004
Current ratio _Post M&A	**30**	.56	4.19	1.4020	1.1650	.78059	2.449	6.162
Financial Leverage _ pre-M&A	**30**	.66	9.50	5.4197	6.1150	2.21994	-.673	.87
Financial Leverage _ post M&A	**30**	.62	10.42	5.5187	5.6550	2.44673	-.432	-.123
Asset Quality _ pre-M&A	**30**	.00	.51	.0497	.0300	.09386	4.389	21.346
Asset Quality _ post M&A	**30**	.00	.51	.0467	.0300	.10433	4.899	25.547
Size _ pre-M&A	**30**	4.80	12.32	9.5721	9.8521	1.81143	-.829	.495
Size _ post M&A	**30**	4.97	12.43	9.6713	9.9785	1.81143	-.762	.402
Age _ pre-M&A	**30**	.69	4.25	3.3897	3.5972	.76450	-1.833	4.260
Age _ post M&A	**30**	1.10	4.26	3.4382	3.6243	.70177	-1.609	3.092

Table 2 can be interpreted as follows: Max (Maximum value of the sample) and Min (Minimum value of the sample) show the minimum and maximum values of a measure across the sample. The arithmetic mean is the average value for the distribution of skew, and the median gives the most concentrated value in the distribution. One of the primary reasons for choosing the median over the mean is that the median is a more robust measure, as it less affected by outliers compared with the mean, which is very sensitive to them. The median standard deviation (square root of the variance) is the measure of the extent to which a given variable deviates from the mean; a higher standard deviation indicates a higher dispersion amongst the data points. The skewness is a measure of the asymmetry of a given distribution. A normal distribution is symmetric, whereas a positively-skewed distribution tends to slant to the right, and a negatively-skewed distribution to the left. Kurtosis is defined as the "differentiated" spread of the curve at the tails. The value 3 is the normal distribution's kurtosis, more significant than three curves with fat tails, whilst kurtoses lower than 3 have thin tails. As is shown in the Table 3 below, the value for each measure before and after was different. It should be thus noted that this difference is statistically significant for evaluation.

4.2 Normality Tests

The normality test results are presented below.

Table 3: Test for Normality

Variables	Kolmogorov–Smirnov			Shapiro–Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA_ pre-M&A	.463	30	.000	.387	30	.000
ROA_ post M&A	.518	30	.000	.294	30	.000
Net Profit_ pre-M&A	.394	30	.000	.405	30	.000
Net Profit_ post M&A	.239	30	.000	.658	30	.000
Current ratio _ pre-M&A	.327	30	.000	.729	30	.000
Current ratio _Post M&A	.367	30	.000	.659	30	.000
Financial Leverage _ pre-M&A	.210	30	.002	.900	30	.008
Financial Leverage _ post M&A	.157	30	.058	.949	30	.155
Asset Quality _ pre-M&A	.314	30	.000	.468	30	.000
Asset Quality _ post M&A	.354	30	.000	.389	30	.000
Size _ pre-M&A	.129	30	.200*	.944	30	.116
Size _ post M&A	.132	30	.192	.948	30	.150
Age _ pre-M&A	.219	30	.001	.829	30	.000
Age _ post M&A	.215	30	.001	.853	30	.001

* This is a lower bound of the true significance.

According to Berg (2022), both Kolmogorov-Smirnov and Shapiro-Wilk have as their null hypothesis that the data are normally distributed. This null hypothesis can be accepted if the p-value is above the chosen significance level, which in this case was set to .01. Table 1 shows that most of the variables are not normally distributed since the probabilities that they represent samples drawn from a normal distribution are all lower than .01. Financial leverage in both pre and post-observations, size, and age are the significant factors. Additional variables, i.e. (pre-and post) ROA, Net Income (pre and post), Current Ratio (pre and post), and Asset Quality (pre and post) do not follow normal distributions. It is because of the non-normality of the variables that the Wilcoxon Signed-Rank test was used as an alternative to the paired t-tests since the latter depends on the assumption of normality.

4.3 Hypothesis Test

One of the most widely used non-parametric tests is the Wilcoxon Signed-Rank test (WRS), which is often used to test samples where the data are paired and the distribution of the differences between the paired observations differs from the normal distribution. The following can be inferred from Table 4: Obtained p-values (Sig. column) < .01 indicate significant differences between the value for a data set before and after the M&A, whereas p-values > 0.01 indicate that there is no significant difference between the value for a dataset before and after the M&A.

Despite its many benefits, some drawbacks of the WRS should be acknowledged. These considerations are essential in evaluating the effectiveness of this test. A weakness of the test is that it depends heavily on the size of the sample: the fewer the respondents, the lower its reliability. With inadequate sample sizes, the test may fail to detect real differences between paired observations. This limitation may lead to situations where neither outcome can be established with an acceptable level of confidence, and the study results have low credibility. Furthermore, the Wilcoxon Signed-Rank test assumes that the observed differences between paired observations are independent of their identically distributed counterparts. Thus, in the study sets, which are based on accurate data, such an assumption can be violated by a variety of factors, such as systematic patterns or the inter-related nature of the differences. In such cases, the test results may be imbalanced or unreliable, resulting in uncertainty and imprecise inference, which, in turn, violates the principles of fairness and validity. In addition, the Wilcoxon Signed Rank test is a general and robust approach even for data sets including outliers. However, extreme outliers can affect the results, especially in small sample sizes. Outliers may be so extreme that they impair the tests of differences between paired observations, making the results difficult to interpret. Additionally, the test may come across difficulties with regard to tied observations (two more pairs of observations attain the same values). Neutrality comes off as the direct test of the hypothesis, which often needs some special conditions to avoid faulty results. The results of the current study indicate that only the sub-hypotheses H_{0e} and H_{0f} are rejected, and therefore that the main hypothesis is accepted, that is, there *is no significant impact of M&A on the Acquirers' financial performance across the banking industry in the GCC.*

Table 4: Wilcoxon Signed-Rank Test of Measures for Banks in GCC

Variables		N	Mean Rank	Sum of Ranks	Z- Statistic	Sig.
ROA_ post compared to ROA_ pre-M&A	Negative Ranks	4[a]	4.00	16.00	-1.555 [(-)]	.120
	Positive Ranks	7[b]	7.14	50.00		
	Ties	19[c]				
	Total	**30**				
Net Profit_ post compared to Net Profit_ pre-M&A	Negative Ranks	15[d]	13.70	205.50	-.260 [(-)]	.795
	Positive Ranks	14[e]	16.39	229.50		
	Ties	1[f]				
	Total	**30**				
Current Ratio_ post compared to Current Ratio_ pre-M&A	Negative Ranks	13[g]	17.69	230.00	-.271 [(+)]	.787
	Positive Ranks	16[h]	12.81	205.00		
	Ties	1[i]				
	Total	**30**				
Financial Leverage_ post compared to Financial Leverage_ pre-M&A	Negative Ranks	13[j]	15.35	199.50	-.679 [(-)]	.497
	Positive Ranks	17[k]	15.62	266.50		
	Ties	0[l]				
	Total	**30**				
Asset Quality_ post compared to Asset Quality_ pre-M&A	Negative Ranks	9[m]	9.72	87.50	-1.023 [(+)]	.306
	Positive Ranks	7[n]	6.93	48.50		
	Ties	14[o]				
	Total	**30**				
Size_ post compared to Size_ pre-M&A	Negative Ranks	3[p]	11.67	35.00	-4.062 [(-)]	.000
	Positive Ranks	27[q]	15.93	430.00		
	Ties	0[r]				
	Total	**30**				
Age_ post compared to Age_ pre-M&A	Negative Ranks	0[s]	.00	.00	-4.783 [(-)]	.000
	Positive Ranks	30[t]	15.50	465.00		
	Ties	0[u]				
	Total	**30**				

5 Discussion

According to Ang et al. (2019) and Kim et al. (2021), acquisitions can have both beneficial and detrimental consequences on the performance of the parent company. This was reflected in our own research, which indicated that M&A had a poor effect on the performance of the acquiree. Notably, there was a negative but weak impact on the acquirer's return on assets and profitability, which concords with Jallow et al.'s (2017) and Syukur and Bungkilo's (2020) findings of a reduction of profitability post-M&A. However, our outcomes do not coincide with Aggarwal and Garg (2019) or Akhtar and Nosheen (2022), as these authors concluded that M&A growth equity. Moreover, our findings deviate from Jallow et al.'s (2017) conclusion that there is a link between M&A transactions and a rise in ROA after the operation. Additionally, the negative but weak relationship between mergers and acquisitions and the liquidity of the acquirer, as observed by Shah and Khan (2017), was also evident in our study. On the other hand, this finding is inconsistent with the results of Alhenawi and Stilwell (2017), Rashid and Naeem (2017), and Akhtar and Nosheen (2022), which showed a positive or neutral effect on money supply. There was also a weak, negative relationship between M&A and the acquirer's financial leverage, similar to the findings of Alhenawi and Stilwell (2017) but conflicting with the conclusion of Rashid and Naeem (2017), Reddy et al. (2019) and Akhtar and Nosheen (2022). Moreover, the study also had a negative but weaker effect on the asset quality of the purchaser which aligns with the work of Akhtar and Nosheen (2022).

Moreover, we recorded a substantial influence of M&A on the age and size of the firm, which agrees with the findings of Akhtar and Nosheen (2022). Such mixed findings suggest that the impact of M&A can change from one context to another and from industry to industry. Nevertheless, in our study, we consider only the banking industry in the GCC region, which is why the generalisability of our findings could be improved. Evaluating possible effects on other sectors or geographical regions would increase the paper's scope. Furthermore, transaction costs and accounting policies can impact the effect of M&A on the monitored performance indicators. For example, the classification of expenditures does not closely match indicators like ROA and net income. Furthermore, business purchases may also improve asset quality. Therefore, the repercussions on liquidity and financial gearing may be very minor in cases where the target size is small. Furthermore, the effects of later studies may be reduced by confounding variables and external developments that are independent of the M&A. In this regard, the observation by Ang and Zhang (2014) signifies that the effects observed previously may not be the consequence of mergers and acquisitions alone. Therefore, to get a more balanced and holistic view of the effects of M&A on firm performance, future research should take into account these factors.

Accordingly, the research question is answered as: "*There is very little impact of M&A on acquirers' financial performance across the banking industry in the GCC.*"

6 Conclusion

As in many other sectors, one of the driving forces for growth in the banking industry are firms' mergers and acquisitions, and these create a continually changing economic landscape. The trend towards M&A activities is noticeable in the GCC region, particularly from 2015 to 2021, during which period listed banks accounted for about 30 out of all 56-banking sector M&A activities. This article examined the effect of M&A on companies' performance, using several performance indicators, such as return on equity, net profitability, working capital, financial leverage, asset quality, size, and age. Descriptive analytics, Kolmogorov-Smirnov and Shapiro-Wilk normality tests, and Wilcoxson Signed-Rank tests were employed to evaluate the effect of M&A on banks. The findings showed a weak negative overall effect of merger and acquisition on the selected performance measures. Whilst prior studies have put forward wide-ranging views about the impact of work automation on different scales, our findings point to a predominantly negative effect, although the degree of influence differs. Some of these factors could be volume effects, transaction modes, accounting policies, and the length of the observation period. Furthermore, the weak correlations for most of the variables, besides the average size and age, reflect the intricacy of the M&A process and the effects it has on the long-run performance of the acquirer. One way this study can make a significant contribution is by outlining crucial factors that could be related to merger and acquisition performance effects on acquirer performance. Further research is required to validate those factors through more in-depth studies. When the researchers investigate more fundamental factors, they could gain a more comprehensive understanding of M&A movement and analyse strategies to help firms overcome the challenges in the rapidly changing corporate environment.

References:

Aggarwal, P. & Garg, S. (2019). Impact of Mergers and Acquisitions on Accounting-Based Performance of Acquiring firms in India. *Global Business Review*, 23(1), 218–236. https://doi.org/10.1177/0972150919852009

Akhtar, Q. & Nosheen, S. (2022). The Impact of Fintech and Banks M&A on Acquirer's Performance: A Strategic Win or Loss? *Borsa Istanbul Review*, 22(6), 1195–1208. https://doi.org/10.1016/j.bir.2022.08.007

Alhenawi, Y. & Stilwell, M. (2017). Value Creation and the Probability of Success in Merger and Acquisition Transactions. *Review of Quantitative Finance and Accounting*, 49(4), 1041–1085. https://doi.org/10.1007/s11156-017-0616-2

Alsamhi, M. H., Al-Ofairi, F. A., Farhan, N. H. S., Al-Ahdal, W. M., & Siddiqui, A. (2022). Impact of Covid-19 on Firms' Performance: Empirical evidence from India. *Cogent Business & Management*, 9(1), 1–16. https://doi.org/10.1080/23311975.2022.2044593

Ang, J. S. & Zhang, S. (2014). Evaluating Long-Horizontal Event Study Methodology. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1865625

Ang, J. S., Daher, M. M., & Ismail, A. K. (2019). How do Firms Value Debt Capacity? Evidence from Mergers and Acquisitions. *Journal of Banking & Finance*, 98, 95–107. https://doi.org/10.1016/j.jbankfin.2018.10.017

Apollo, A. & Zulkifli, Z. (2019). Comparative Analysis of Market Returns among Countries in Southeast Asia. *EPRA International Journal of Multidisciplinary Research*, 5(7), 162–167.

Austin, R. E. & Dunham, L. M. (2022). Do FinTech Acquisitions Improve the Operating Performance or Risk Profiles of Acquiring Firms? *Journal of Economics and Business*. 121, Article 106078. https://doi.org/10.1016/j.jeconbus.2022.106078

Boot, A., Hoffmann, P., Laeven, L., & Ratnovski, L. (2021). Fintech: What's Old, What's New? *Journal of Financial Stability*, 53, Article100836. https://doi.org/10.1016/j.jfs.2020.100836

Benny, J. (2022). GCC Banks to Start 2023 on Solid Footing Despite Global Economic Uncertainties, S&P says. *The National News*. [Online]. Available at: https://www.thenationalnews.com/business/banking/2022/11/13/gcc-banks-to-start-2023-on-solid-footing-despite-global-economic-uncertainties-sp-says/. [8th January 2023].

Berg, R. G. V. D. (2022). SPSS Output- Basics, Tips, and Tricks. *SPSS Tutorials*. [Online]. Available at: https://www.spss-tutorials.com/spss-output/ [8th January 2023].

Chong, T. T., Cheng, S. H., & Wong, E. (2010). A Comparison of Stock Market Efficiency of the BRIC Countries. *Technology and Innovation*, 2010(1), 235–238. https://doi.org/10.4236/ti.2010.14029

Cui, H. & Leung, S. C. M. (2020). The Long-run Performance of Acquiring Firms in Mergers and Acquisitions: Does Managerial Ability Matter? *Journal of Contemporary Accounting and Economics*, 16(1), Article 100185. https://doi.org/10.1016/j.jcae.2020.100185

Dranev, Y., Frolova, K., & Ochirova, E. (2019). The Impact of Fintech M&A on Stock Returns. *Research in International Business and Finance*. 48: 353–364.

Dratva, R. (2020). Is Open Banking Driving the Financial Industry Towards a True Electronic Market? *Electronic Markets*, 30(1), 65–67.

Evans, R. W. (2018). Generalised Method of Moments (GMM) Estimation. *QuantEcon*. [Online]. Available at: https://notes.quantecon.org/submission/5b3b1856b9eab00015b89f90#:~:text=GMM%20estimates%20have%20bad%20small,and%20inefficiency%20in%20small%20samples. [8th January 2023].

Ferrati, F. & Muffatto, M. (2020). Using Crunchbase for Research in Entrepreneurship: Data Content and Structure. *European Conference on Research Methodology for Business and Management Studies; Kidmore End*, Jun 2020.

Hanafizadeh, P. & Amin, M. G. (2022). The Transformative Potential of Banking Service Domains with the Emergence of FinTechs. *Journal of Financial Services Marketing*, 1–37. https://doi.org/10.1057/s41264-022-00161-0

Hines, M. (2020). How Going All-In on Machine Learning Changed Data Collection at Morningstar. *BuiltIn Chicago*. [Online]. Available at: https://www.builtinchicago.org/2020/02/28/morningstar-machine-learning-data-collection. [8th January 2023].

Hughes, J. P., Jagtiani, J., & Moon, C. G. (2022). Consumer Lending Efficiency: Commercial Banks versus a Fintech Lender. *Financial Innovation*, 8, 1–39. https://doi.org/10.1186/s40854-021-00326-1

Jallow, M. S., Masazing, M., & Basit, A. (2017). The Effects of Mergers & Acquisitions on Financial Performance: Case study of UK Companies. *International Journal of Accounting and Business Management*, 5(1), 74–92.

Kim, H., Ko, J., Jun, C., & Song, K. R. (2021). Going Public through Mergers with Special Purpose Acquisition Companies. *International Review of Finance*, 21(3), 742–768. https://doi.org/10.1111/irfi.12297

Kwak, S. G. & Kim, J. H. (2017). Central Limit Theorem: The Cornerstone of Modern Statistics. *Korean Journal of Anesthesiology*, 70(2), 144–156. https://doi.org/10.4097/kjae.2017.70.2.144

Lee, C. C., Li, X., Yu, C. H., & Zhao, J. (2021). Does Fintech Innovation Improve Bank Efficiency? Evidence from China's Banking Industry. *International Review of Economics & Finance*, 74, 468–483. https://doi.org/10.1016/j.iref.2021.03.009

Liu, J., Li, X., & Wang, S. (2020). What Have We Learnt from 10 Years of Fintech Research? A Scientometric Analysis. *Technological Forecasting and Social Change*, 155, Article 120022. https://doi.org/10.1016/j.techfore.2020.120022

Novialdi, F. R. & Wardhani, R. (2019). Cross-Border Acquisition and Financial Leverage: The Empirical Evidence from Acquisition in Asia. *Meditari Accountancy Research*, 28(1), 206–228. https://doi.org/10.1108/medar-12-2018-0413

PwC. (2020). Acquiring an Asset or a Business? It Matters in Deal Models. *PwC*. [Online]. Available at: https://viewpoint.pwc.com/dt/us/en/pwc/in_the_loop/in_the_loop_US/Acquiring-an-asset-or-a-business-It-matters-in-deal-models.html#:~:text=In%20an%20acquisition%20of%20a,capitalized%20and%20then%20subsequently%20depreciated.. [8th January 2023].

Rashid, A. & Naeem, N. (2017). Effects of Mergers on Corporate Performance: An Empirical Evaluation using OLS and the Empirical Bayesian Methods. *Borsa Istanbul Review*, 17(1), 10–24. https://doi.org/10.1016/j.bir.2016.09.004

Reddy, K., Qamar, M., & Yahanpath, N. (2019). Do Mergers and Acquisitions Create Value? The Post-M&A Performance of Acquiring Firms in China and India. *Studies in Economics and Finance*, 36(2), 240–264. https://doi.org/10.1108/sef-01-2018-0027

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students*. 7th Ed. London, Pearson.

Schmelezer, R. (2020). Automating Data Collection for AI at Morningstar. *Forbes*. [Online]. Available at: https://www.forbes.com/sites/cognitiveworld/2020/10/01/automating-data-collection-for-ai-at-morningstar/?sh=38074a3b393b. [8th January 2023].

Shah, B. A. & Khan, N. (2017). Impacts of Mergers and Acquisitions on Acquirer Banks' Performance. *Australasian Accounting, Business and Finance Journal*, 11(3), 30–54. https://doi.org/10.14453/aabfj.v11i3.4

Sharma, R. K. (2020). *Ratio Analysis: Financial Ratios*. New Delhi. Notion Press.

Syukur, M. & Bungkilo, D. A. (2020). The Aftermaths of Acquisition in Indonesia. *International Journal of Monetary Economics and Finance*, 13(1), 16–33. https://doi.org/10.1504/ijmef.2020.10024708

Tao, R., Su, C. W., Naqvi, B., & Rizvi, S. K. A. (2022). Can Fintech Development Pave the Way for a Transition Towards Low-Carbon Economy: A Global Perspective. *Technological Forecasting and Social Change*, 174, Article 121278. https://doi.org/10.1016/j.techfore.2021.121278

Thakor, A. V. (2020). Fintech and Banking: What do We Know? *Journal of Financial Intermediation*, 41, Article 100833. https://doi.org/10.1016/j.jfi.2019.100833

Wang, Y., Xiuping, S., & Zhang, Q. (2021). Can Fintech Improve the Efficiency of Commercial Banks? An Analysis based on Big Data. *Research in International Business and Finance*, 55, Article 101338. https://doi.org/10.1016/j.ribaf.2020.101338