AN EMPIRICAL STUDY AND STATE OF PLAY OF THE LINK BETWEEN M&A OPERATIONS AND PERFORMANCE OF COMPANIES

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ARTICLE INFO	ABSTRACT
	Objective: The objective of this study is to investigate the impact of external growth on firm's performance, with the aim of verify the changes that performance may have before and after M&A operation. **Theoretical Framework:** In this topic, the main concepts and theories that underpin the research are presented. Efficiency theory, Value theory stand out among theories that better justify reasons why shareholders choose to deal with M&A, and thus provid a solid basis for understanding the context of the investigation. **Method:** The methodology adopted for this research comprises regression analysis of Return of assets of selected firms. Data collection was carried out through CapitalIQ5 platform based in firms that belong to MENA region and carried out M&A operations between 01/01/2022 and 31/12/2022 **Results and Discussion:** The results obtained revealed the global evolutions of effect on the short term of the M&A operations on the companies' performance, represented by the RoE, is globally negative by the linear hypothesis considered. In the discussion section, these results are in lign with general expectations of the operations that are basically long term. **Research Implications:** The practical and theoretical implications of this research proove the negative short term impact of the M&A operations on financial performance of firms which allowed us to judge that a study spread over time will lead us to more meaningful conclusions. **Originality/Value:** This study contributes to the literature by trying to study the impact of M&A opperations on financial perfomance in theoretical and empircal ways. The relevance and value of this research are evidenced by using regressions and t test statistics in order to deduct the impact of M&A operations. Doi: https://doi.org/10.26668/businessreview/2024.v9i7.4856

ESTUDO EMPRICO E SITUAÇÃO DA RELAÇÃO ENTRE AS OPERAÇÕES DE M&A E O DESEMPENHO DAS EMPRESAS

RESUMO
Objetivo: O objetivo deste estudo é investigar o impacto do crescimento externo no desempenho da empresa, com o objetivo de verificar as alterações que o desempenho pode sofrer antes e depois da operação de F&A.
Referencial Teórico: En este tema se presentan los principales conceptos y teorías que sustentan la investigación. La teoría de la eficiencia y la teoría del valor se destacan entre las teorías que justifican mejores razones por las cuales los accionistas eligen negociar fusiones y adquisiciones y, por lo tanto, proporcionan una base sólida para comprender el contexto de la investigación.
Método: A metodologia adotada para esta pesquisa inclui a análise de regressão do Retorno dos ativos das empresas selecionadas. A recolha de dados foi realizada através da plataforma CapitalIQ5 sediada em empresas pertencentes à região MENA e que realizaram operações de M&A entre 01/01/2022 e 31/12/2022

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Resultados e Discussão: Os resultados obtidos revelaram que a evolução global do efeito de curto prazo das operações de F&A no desempenho das empresas, representado pelo RoE, é globalmente negativo pela hipótese linear considerada. Na secção de discussão, estes resultados estão em linha com as expectativas gerais das operações que são basicamente de longo prazo.

Implicações da Pesquisa: As implicações práticas e teóricas desta investigação comprovam o impacto negativo a curto prazo das operações de F&A no desempenho financeiro das empresas, o que nos permitiu julgar que um estudo espalhado ao longo do tempo nos levará a conclusões mais significativas.

Originalidade/Valor: Este estudo contribui para a literatura ao tentar estudar o impacto das operações de F&A no desempenho financeiro de forma teórica e empírica. A relevância e o valor desta investigação são evidenciados pela utilização de regressões e estatísticas de testes t para deduzir o impacto das operações de F&A.

Palavras-chave: Fusões e Aquisições, Desempenho Financeiro, MENA, Cotadas em Bolsa, Análise de Curto Prazo.

UN ESTUDIO EMPRÁCICO Y SITUACIÓN DEL VÍNCULO ENTRE OPERACIONES DE M&A Y DESEMPEÑO DE LAS EMPRESAS

RESUMEN

Objetivo: El objetivo de este estudio es investigar el impacto del crecimiento externo en el desempeño de la empresa, con el objetivo de verificar los cambios que ese desempeño puede tener antes y después de la operación de fusiones y adquisiciones.

Marco Teórico: Neste tópico são apresentados os principais conceitos e teorias que fundamentam a investigação. A teoria da eficiência e a teoria do valor destacam-se entre as teorias que justificam melhores razões pelas quais os acionistas optam por lidar com a M&A, e assim fornecem uma base sólida para a compreensão do contexto da investigação.

Método: La metodología adoptada para esta investigación incluye análisis de regresión del rendimiento de los activos de empresas seleccionadas. La recopilación de datos se realizó a través de la plataforma CapitalIQ5 con base en empresas que pertenecen a la región MENA y realizaron operaciones de fusiones y adquisiciones entre el 01/01/2022 y el 31/12/2022

Resultados y Discusión: Los resultados obtenidos revelaron que la evolución global del efecto a corto plazo de las operaciones de M&A sobre el rendimiento de las empresas, representado por el RoE, es globalmente negativa según la hipótesis lineal considerada. En la sección de discusión, estos resultados están en línea con las expectativas generales de las operaciones que son básicamente de largo plazo.

Implicaciones de lainvestigación: Las implicaciones prácticas y teóricas de esta investigación demuestran el impacto negativo a corto plazo de las operaciones de fusiones y adquisiciones en el desempeño financiero de las empresas, lo que nos permitió juzgar que un estudio extendido en el tiempo nos llevará a conclusiones más significativas.

Originalidad/Valor: Este estudio contribuye a la literatura al intentar estudiar el impacto de las operaciones de fusiones y adquisiciones en el desempeño financiero de manera teórica y empírica. La relevancia y el valor de esta investigación se evidencian mediante el uso de regresiones y estadísticas de prueba t para deducir el impacto de las operaciones de fusiones y adquisiciones.

Palabras clave: Fusiones y Adquisiciones, Desempeño Financiero, MENA, Cotización en Bolsa, Análisis a Corto Plazo.

1 INTRODUCTION

In a world in perpetual evolution, the dynamism of mergers and acquisitions, favored by globalization trends and the quest of companies' growth, has deeply impacted the global economic landscape. In fact, these financial operations present an opportunity to gain

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momentum and to meet the demands of a market that has become extremely competitive, as they constitute an interesting lever allowing external growth and the creation of value.

This globalization trend towards (M&A) is explained by the synergies that emerge from the pooling of all the categories of resources of two companies participating in the transaction, theoretically supposed to synchronize in order to improve the performance of the new entity resulting from the M&A operation or simply improve the global performance of the acquirer.

In this sense, the last decades have shown that a noticeable augmentation of the number and the value of transaction of mergers and acquisitions across the globe. Indeed, according to a report from the Price Waterhouse Cooper (PWC), the number of M&A have reached a record of more than 65 000 in 2023, which confirms the upward trend triggered at the end of the Covid 19 pandemic, considering the 62 000 transactions accomplished in 2021.

Figure 1

Evolution of number and value of mergers and acquisitions woldwide
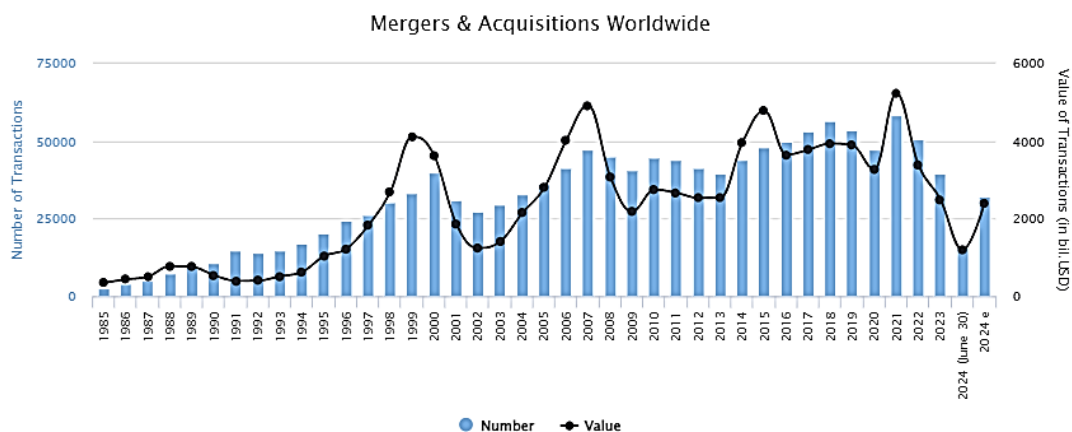
Source: The statistics given by the institute of mergers and acquisitions and alliances (2024)

However, despite their potential, the M&A can also present challenges, in terms of organizational integration and achiever the expected synergies, and therefore the risk of implying underperformance for those involved in the transaction.

Thus, it seems appropriate to ask whether if the performance of the company actually improves in the short term following an M&A transaction. In this context, the objective is to test or confirm this hypothesis through an analysis of the evolution of the company's performance before and after the transaction. This study will examine specifically the principal operations of M&A of 2022 involving 22 listed companies, with the largest acquisition values in the MENA region, and analyze the performance of these companies over time using a synthetic financial indicator in the following two years.

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2 THEORETICAL FRAMEWORK
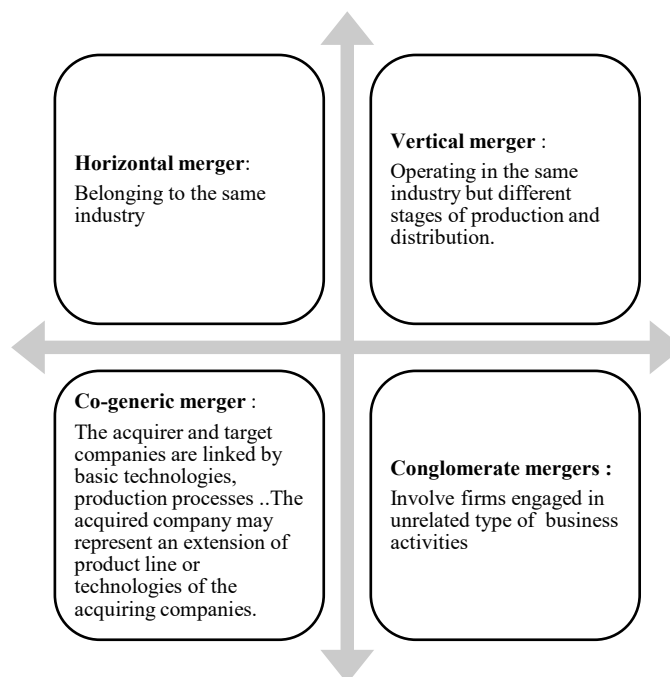
2.1 MERGER AND ACQUISITIONS

The history of merger and acquisition operations on the international scale generally references 6 specific waves and specifically at the end of each one usually falls a major war or the start of a recession / crisis. Also, the first and second waves do not concern only the American market, while the other waves were geographically dispersed. Particularly, in the fifth wave, where in addition to the US, UK and continental Europe, the M&A market has grown significally in Asia.

The sector of activity for its part seems to impact the evolution of these operations. Indeed, some sectors are experiencing an increasing activity in terms of mergers and acquisitions while others seem to be stagnating.

According to the geographic distribution of M&A transactions, North America records the most important value of these transaction internationally. Europe recorded a significant wave of M&A operations, particularly from 1999. There are many types of merger and acquisition operations:

Figure 2

Types of common mergers and acquisitions

Horizontal merger: Belonging to the same industry

Vertical merger : Operating in the same industry but different stages of production and distribution.

Co-generic merger : The acquirer and target companies are linked by basic technologies, production processes ..The acquired company may represent an extension of product line or technologies of the acquiring companies.

Conglomerate mergers : Involve firms engaged in unrelated type of business activities

Source: Pachulia (2018).

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Many theories have been mobilized in order to study and explain the reasons to use these strategic growth options. In fact, the study of M&A operation constitutes an important field of research. Many theories have been elaborated in order to explain the origin of the M&A movements or to analyze the consequences in the light of numerous disciplines such as industrial economics, strategies, management and finance.

Figure 3

Motivations for carrying out a merger and acquisition transaction
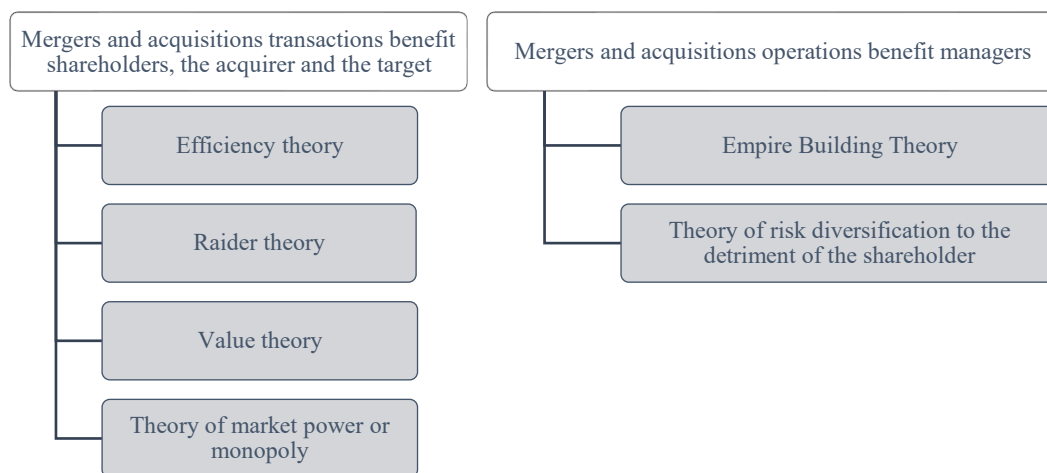
Source: Adapted from Piffer (2023).

From another perspective, a problem of limited number of due diligences, overestimation of potential synergies and lack if indecision in terms of plan are revealed after merger and acquisition operations according to Reuben Badubi research (2017).

2.2 THE IMPACT OF M&A ON PERFORMANCE: A LITERATURE REVIEW:

In order to evaluate the effect of M&A operations on the companies we we tried to identify the literature dealing with this problem.

This, Beverly and Al. (2019) research have presented an analysis of the effect of M&A transaction in Indonesia considering the listed companies. Among the three ratios studied are the Return On Capital Employed (ROCE), Operating Marging (MO) and the Net Profit Margin (MBN).

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The results on these three indicators were mixed. Indeed, two of the three indicators, ROCE and MBN, have showed a significant growth after the transaction due to the efficient and optimal use of economic assets for ROCE, and a considerable increase in sales for MBN. In return, the third indicator, MO, have showed an underperformance following the merger, due to the proportionality of expenses of the acquired company, having a higher weight both in relation with expenses and revenues generated.

For the same purpose, and with a more market oriented approach, Yilmaz and Al. (2011) have examined the impacts of M&A by analyzing the presence of Abnormal Returns in Turkey. Also, a sample was selected of the merging companies for over a period of 4 years. Furthermore, one of the fundamental hypothesis of the analysis concerned the presumptive character of the perfect market, which results in the attribution of any abnormal returns exclusively to the merger.

In this comparative logic, the results of the thesis have shown that the revenues of the new entities have been superior than the average of the industry, which means that the positive effects of M&A. This conclusion can not be generalized because these positive differences are more significant in the long term than in the short term.

In fact, a profound examination of the post-merger impact on the acquirer shows that operational synergies can be significantly improved when the acquirer retains tangible and effective control over the entity. The study specifies that management continuity is of crucial importance in achieving the expected benefits of the operation.

In 2012, researches done by Sunie and Al. in order to comprehend the relation between the global performance of companies, their revenues and their sales three years after an operation of M&A have been based on the analysis of the evolution of ratios such as Return on Equitiy and Return on Assets, as well as other ratios comparing operating performance (EBITDA and EBIT) with sales. The results indicate that the majority newly formed entities out performed individual businesses, with a propotion exceeding 70%.

In the same way, the thesis of Schlingermann and Stulz (2021) based on a meta analysis in order to identify the impacts on the long term of M&A on the financial performance of the acquired companies showed that the M&A transaction have generated moderate gains of performance on long term. These results have been considerably variable depending on a number of factors such as the integration strategy, the quality of post-operation management as well as general economic conditions.

The study of the evolution of the shareholder value of companies following the M&A transactions have shown that acquisitions carried out mainly by existing managers are likely to

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lead to a distruction of value, taking into account various factors, particularly overvaluation of targeted entities as well as the inability to materialize the anticipated synergies. However, the strategic acquisitions marked by monitoring the process of M&A as well as a clear definition of objectives tends to increase the value for the shareholders of the acquiring companies (Harford and Al. 2020).

A research that aims to understand the effects of M&A operations on Research and Development (R&D) at companies were conducted by Guler and Guillen (2022). The results have shown that the impacts of mergers and acquisitions can be mixed with innovation. Indeed, in some cases, acquisitions have had a simultating effect on companies' innovation, thanks to the pooling of complementary resources and the facilitation of access to markets and technologies. However, in other cases, organizational and cultural changes due to mergers have negatively impacted the existing processes and reduced the urgency and the importance of investing in R&D.

In a pure financial perfective, based on solvency and liquidity, the study carried out by Ismail and Al. in 2010, covering a sample made of companies operating in various sectors in Egypt, have showed that the financial structure of the entities subject to transactions do not undergo any modifications after a merger operation, which translates into the absence of change at the level if liquidity and solvency ratios.

In the same order, a study done by Agrawal, Jaffe and Mandelker (2020) treating the effect of M&A on the performance have presented detailed and mixed results.

Researches done in an approach of corporate governance, shows that the M&A transactions can have a positive impact on the company's governance, and this is because of the introduction of new managerial practices that allow the optimization of organizational structures. These necessary adjustments can negatively influence the organizational culture and the internal dynamics, which impacts the productivity and the global performance of the company.

Besides, Andriosopoulous and Al. study in 2018, aiming to understand the impact of the size and the composition of the board of administrators on the creation of value for shareholders after the merger, in the banking sector in Europe have showed that banking groups with boards of administrators of a significant size and with high diversity, particularly in terms of independence of directors, present better post M&A performance in terms of shareholder value. On the other hand, inadequate board composition can limit the potential benefits of M&A, due to compromised decision-making as well as poor management oversight.

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In a compartmental approach, researches done by Mitchel and Al. in 2021 on the behaviors and decision makings of the managers during mergers, and their impacts on the company's performance, showed that the limits of managers' attention capacities and the constraints of allocation of the limited efforts of these, have a major influence of the post M&A success. Thus, it is extremely important to considerate the strategic focus of management as a factor in the success of the transaction and also to develop proactive risk management in order to mitigate potential difficulties.

3 METHODOLOGY

In order to evaluate the companies' performance following the mergers and acquisitions (M&A), the performance comparison fulfilled by the acquiring and acquired entities with the one the two companies subject to the transaction would have been achieved if they had continued operating in an individual way.

The following example allows a better understanding of the work's methodology:

Let's consider two companies, A and B, acquires B in 2022, and continue publishing their data.

We take into consideration a financial indicator representing the company's performance for a specific time of 14 trimesters, between 01/10/2019 and 30/06/2022, equivalent to 3.5 years for both companies, A and B. Later on, we extrapolate the indicator for 7 trimesters as an average period of time, between 30/09/2022 and 31/03/2024. In fine, the comparison of the real values with the estimated ones will allow better understand the transaction effect.

The study involves a sample of 22 entities with different operating sectors in the MENA region, having achieved the highest transactions in terms of values between 01/01/2022 and 31/12/2022.

3.1 SAMPLE SELECTION

Data collection was carried out through CapitalIQ5 platform, the criteria used for the sample's selection are presented as following:

1. geographical zone: North of Africa and the Middle East;
2. date of transaction : between 01/01/2022 and 31/12/2022;
3. typology of the acquiring company: listed company;

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4. typology of the acquired company: Listed company.

The choice of this specific period between the 1st January 2022 and the 31st December 2022, is explained by two major reasons: On one hand, this year was marked by an important number of M&A transactions along with 2021(avoiding this year allows us to exclude the short-term effects of the health crisis), which grants the presence of a remarkable sample with a large size in the region activity. On the other hand, this specific period offers an adequate time margin for extrapolating data related to 2023 and 2024 trimesters, allowing a prospective evaluation of short-term trends.

The sample represents in terms of values 43% of the transactions carried out between the listed companies of the MENA region. It is represented in this table below:

Table 1

Summary of M&A operations in the MENA region subject of the study

Acquired entity	Acquiring entity	Transaction code	Geographic region	Transaction value ($M USD)	Transaction date
Gav-Yam Lands Corp. Ltd (TASE:GVYM)	Property & Building Corp. Ltd. (TASE:PTBL)	A	MENA REGION	3 010,69	06/06/2022
Turkiye Garanti Bankasi A.S. (IBSE:GARAN)	Banco Bilbao Vizcaya Argentaria, S.A. (BME:BBVA)	B	MENA REGION	1 426,72	18/05/2022
Abu Dhabi Ports Company PJSC (ADX:ADPORTS)	Al Seer Marine Supplies and Equipment Company PJSC (ADX:ASM	C	MENA REGION	1 089,03	07/02/2022
Aquarius Engines (A.M) Ltd. (TASE:AQUA)	TPR Co., Ltd. (TSE:6463)	D	MENA REGION	503,97	01/02/2022
Yapi ve Kredi Bankasi A.S. (IBSE:YKBNK)	Koç Holding A.S. (IBSE:KCHOL)	E	MENA REGION	361,04	01/04/2022
AlAhli Takaful Company	Arabian Shield Cooperative Insurance Company (SASE:8070)	F	MENA REGION	193,35	12/01/2022
Oil Refineries Ltd. (TASE:ORL)	Hagag Group Real Estate Entrepreneurship Ltd (TASE:HGG)	G	MENA REGION	171,44	18/04/2022
G City Ltd (TASE:GCT)	The Phoenix Holdings Ltd. (TASE:PHOE)	H	MENA REGION	47,48	15/02/2022
Karel Elektronik Sanayi Ve Ticaret A.S. (IBSE:KAREL)	Dogan Sirketler Grubu Holding A.S. (IBSE:DOHOL)	I	MENA REGION	45,74	30/06/2022
Khaleeji Bank B.S.C. (BAX:KHALEEJI)	GFH Financial Group BSC (KWSE:GFH)	J	MENA REGION	20,69	04/01/2022
SICO BSC (c) (BAX:SICO-C)	Bank Muscat SAOG (MSM:BKMB)	K	MENA REGION	5,06	23/10/2022

Source: CapitalIQ, 2024.

3.2 VARIABLES

The financial indicator utilized in the aim of translating the financial performance of the company is the **Return on Equity (RoE).** It is a measure allowing the shareholders to evaluate the capacity of the invested capital, represented by the equities, to generate a certain level of profit. In order to calculate this ratio, we divide the net profit by the equities.

The choice of this indicator is explained by its capacity in summarizing numerous performance key factors of a certain company. Indeed, thanks to DuPont formula, the RoE could be developed as follows:

$$RoE = \frac{Net\ income}{Equity} = \frac{Net\ income}{Sales\ turnover} \times \frac{Sales\ turnover}{Total\ assets} \times \frac{Total\ assets}{Equity} \qquad (1)$$

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The development of the Return on Equity calculation formula highlights three essential components:

$$RoE = Net\ profit\ margin \times Assets\ turnover \times Leverage \qquad (2)$$

1. **net profit margin:** the RoE explains the net profit margin, which measures the profitability of sdales after deducting all costs, including interest charges and taxes. A high net margin indicates increased operational efficiency;
2. **asset turnover:** RoE also considers asset turnover, this indicator presents the operational efficiency of the company by highlighting its ability to generate sales in relation of its total assets. High asset turnover can indicate efficient use of ressources;
3. **leverage:** The RoE also reflects financial leverage. Indeed, this effect makes it possible to debt in relation to equity, which can give an idea of the financial structure if the company.

It should be noted that the transactions selected are those linked to companies applying the propostional consolidation method in accounting. This means that after the merger, the companies produce separate financial statements.

4 HYPOTHESIS

H1: The analysis presumes that the economical activity maintains its momentum and follows an upward trend. Thus, the selected indicator will be extrapolated using linear regression based on past performance. The approach consists of linearly extrapolating data from the last 14 quarters of the companies involved in each transaction in order to predict their potential evolution over the following 7 trimesters. Although the linearity hypothesis is not robust in this model, it is essential to establish a consistent basis for comparison.

As a result, the mathematical modeling of the model used for the study is fomulated as following:

$$RoE_{t+k} = \alpha + \beta \times RoE_{t-k} + \varepsilon_{t+k} \qquad (3)$$

where:

For $k = 1, 2. . .$

RoE_{t+k}: RoE projected for thetrimester$t + k$after merger;

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RoE_{t-k}: RoE observed for the trimester $t - k$ after merger;

α: Intercept, represent the expected value of RoE_{t+k} when $RoE_{t+k} = 0$;

β: Regression coefficient, measures the sensitivity of RoE_{t+k} comparing to RoE_{t-k}

ε_{t+k}: Random error, capturing the unexplained variances by the model for the trimester $t + k$.

5 RESULTS AND DISCUSSION

The table below presents the companies subject to M&A transactions. The following elements are by trimester:

- the means, medians and standard deviations of the effective RoE;
- the means, medians and standard deviation fo the extrapolated RoE.

It is to be noted that the obtained data after the extrapolations realized on the base of the model. On the other hand, the estimated data are highlighted in blue in order to facilitate their identification:

Table 2

Descriptive statistics of the ROE ratio relating to Fusac operations in the MENA region subject of the study

	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
Average effective RoE (1)	16,08%	16,69%	16,20%	15,43%	4,04%	7,82%	10,50%	5,14%	4,94%	7,16%
Average extrapolated RoE (2)	16,08%	18,50%	17,28%	18,55%	20,21%	21,61%	22,89%	24,62%	25,35%	26,30%
Difference ((1)-(2)	0,00%	-1,81%	-1,08%	-3,13%	-16,18%	-13,79%	-12,39%	-19,47%	-20,41%	-19,13%
Median of effective RoE (3)	12,91%	10,90%	9,42%	8,47%	7,51%	8,90%	7,87%	6,45%	5,63%	6,53%
Median of extrapolated RoE (4)	12,91%	11,46%	12,76%	12,42%	12,00%	13,85%	14,39%	15,53%	16,64%	16,46%
Difference (3)-(4)	0,00%	-0,56%	-3,34%	-3,94%	-4,49%	-4,94%	-6,52%	-9,08%	-11,00%	-9,92%
Standard deviation of effective RoE	0,178	0,202	0,291	0,280	0,317	0,243	0,291	0,343	0,414	0,097
Standard deviation of extrapolated	0,178	0,185	0,174	0,130	0,149	0,174	0,202	0,233	0,263	0,296
Differebce 5)-(6)	(0,006)	(0,033)	(0,039)	(0,045)	(0,049)	(0,065)	(0,091)	(0,110)	0,151	(0,199)

Source: Analysis based on data from CapitalIQ, 2024

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Figure 4

Evolution of average ROE per quarter
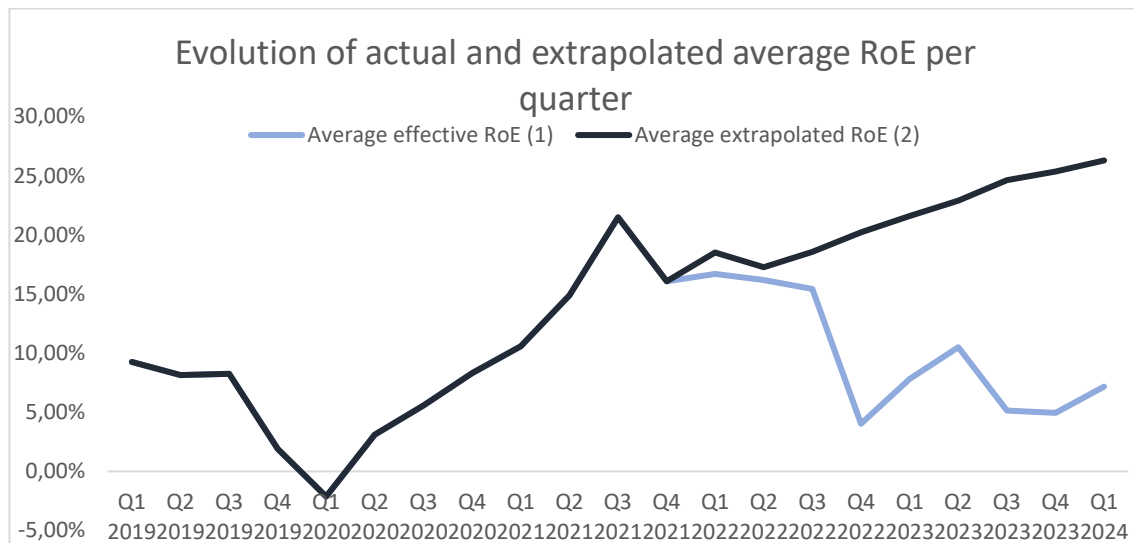
Source: Analysis based on data from CapitalIQ, 2024

The visual analysis shows that the financial performance estimated through the extrapolation of RoE using regression is much higher than the actual performance achieved by the companies subject to the transaction over, the following trimesters. Indeed, the average difference calculated on the bases of the difference between the means of the actual RoE and the estimated ones in the Table 1, stands at -5.11%. Also, the average difference relative to the medians of the real and effective RoE is -2.6%.

Average deviations in absolute terms:

To analyse the differences in a relative way, the calculation of the coefficient of variation (Standard deviation divided by the mean) is of great interest since it will allow an evaluation of the relative dispersion of the data, and therefore a more precise perspective nuanced on the differences observed. For the considered sample, the calculation of the coefficient of variation presents a value of 45%, which indicates a relatively significant dispersion compared to the mean.

In order to compensate for this significant variability reflect by the coefficient of variation, the analysis of the individuals' tendencies of the transactions is judicious. In the sense, for each transaction, a comparison was made of the sums of the actual and estimated RoE per trimester.The table below presents the summary of the differences by transaction and by extrapolated trimester:

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Table 3

Summary of differences by transaction and by extrapolated trimester:

Transaction	T1 2022	T2 2022	T3 2022	T4 2022	T1 2023	T2 2023	T3 2023	T4 2023	T1 2024	Mean
Transaction A	0,00%	0,00%	-34,77%	-72,97%	-66,35%	-50,68%	-136,50%	-119,31%	-108,85%	-28,07%
Transaction B	0,00%	0,00%	28,25%	19,51%	-1,47%	-2,87%	-0,89%	-1,78%	-19,69%	1,00%
Transaction C	0,00%	20,10%	-19,22%	-10,12%	-26,66%	4,91%	4,03%	10,65%	30,66%	0,68%
Transaction D	0,00%	-86,37%	-81,49%	-103,30%	-114,64%	-138,65%	-168,32%	-200,90%	-88,85%	-46,79%
Transaction E	-19,70%	-2,70%	-4,07%	-5,56%	-2,06%	6,35%	1,30%	5,63%	5,17%	-0,74%
Transaction F	-19,70%	-2,70%	-4,07%	-5,56%	-2,06%	6,35%	1,30%	5,63%	5,17%	-0,74%
Transaction G	0,00%	20,67%	55,74%	14,16%	59,01%	-21,20%	-9,44%	-5,59%	-31,16%	3,91%
Transaction H	-14,34%	-32,18%	-37,54%	-76,75%	-72,38%	-50,00%	-73,50%	-57,65%	-57,83%	-22,48%
Transaction I	0,00%	0,00%	-31,63%	-140,60%	-35,11%	3,15%	-64,42%	-0,59%	-47,24%	-15,07%
Transaction J	-3,98%	-6,64%	-11,14%	-16,97%	-12,40%	-13,02%	-22,83%	-33,05%	-23,63%	-6,84%
Transaction K	0,00%	0,00%	0,00%	-3,43%	-3,09%	-2,08%	-5,97%	6,69%	4,15%	-0,18%
Mean	-5,25%	-8,17%	-12,72%	-36,51%	-25,20%	-23,43%	-43,21%	-35,48%	-30,19%	-10,48%

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Source: Analysis based on data from CapitalIQ, 2024

The analysis shows an average under-performance of -10.5%. Although, the analysis of transaction by transaction shows an heterogeneity in conclusions. As a matter of fact, it is important to underline just 3 transactions from the 11 ones have shown an improvement in RoE comparing to what have been estimated by the linear regression, generating previsions that are prudent and less favorable.

In fine, it seems that the global evolutions of effect on the short term of the M&A operations on the companies' performance, represented by the RoE, is globally negative by the linear hypothesis considered. However, the individualized transaction by transaction analysis reveals heterogeneity, given that certain cases stand out for superior performance on the same basis. This diversiy of results of results underlines the imporantce of deepening the analysis in order to understand the specific determinants of these variations. Consequently, it is imperative to deploy a more refined methodology, such as a choice of a particular sector, or case studies relating to a particular transaction in order to explore the strategy, the context as well as the organizational structures involved.

Our analysis will be supplemented by a detailed t-test which will allow us to follow variations in the average profitability before and after each transaction, which will give us a more in-depth idea of the changes in profitability following these mergers and acquisitions operations.

6 CONCLUSION

Through this research, we proceeded by analyzing the performance of companies dealing with a merger and acquisition operation in order to compare the financial performance

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extrapolated with the real one. The research results have revealed a global negative impact on the short term. Indeed, the global evaluation of effects on the short term of M&A oprations on the companies' performance, represented by RoE, is globally negative. On the other hand, the individualized analysis of the transaction by transaction reveal an heterogeneity, that lets appear certain cases that have a higher performance on the same base. In fact, this study needs to be completed by a deeper analysis of the effects considering other variables, such as the size of companies, their sector of activity, the before-after management. In addition, the financial indicators can also be detailed considering other financial indicators of performance. In the same context, the merger and acquisitions are done in order to gain in synergies and advantages on the long term, thus, our study needs analysis that allow to complete the short term by some studies that are expended in more important horizons.

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