

The moderating effects of the industry competition level and industry diversification on the relationship between the transaction price of mergers and acquisitions and corporate value

Ahmad Nasser Abuzaid^{1*} Aymn Sulieman Al-Qatawenh² Saif-aldeen Marwan Madadha³ Manal Mohammad Alateeq⁴

 Lass
 Operatment
 of
 Business

 Administration,
 School of
 Business,

 Mutah University,
 Alkarak,
 Jordan.

 'Emaik ahmad.abuzaid@mutah.edu.jo
 *

 'Emaik aymu540@mutah.edu.jo
 *

 'Emaik saif.madadha@mutah.edu.jo

 'Emaik manal19@mutah.edu.jo

Licensed:

This work is licensed under a Creative Commons Attribution 4.0 License.

Keywords:

Competition intensity Corporate value Diversification Merger and acquisitions Transaction's price.

JEL Classification: *G340; G320; L250.*

Received: 4 December 2023 Revised: 19 February 2024 Accepted: 6 March 2024 Published: 9 April 2024 (* Corresponding Author)

Abstract

This study delved into the moderating impact of industry diversification and competition intensity on the relationship between merger and acquisition transaction prices and enterprise value. Using panel data on corporate mergers and acquisitions in Jordan between 2017 and 2022, this study applied a fixed effect model and performed robust regression to test hypotheses. A total of 402 observations for 108 companies were included in the estimation, and year dummies were incorporated into the model to control for yearspecific effects. The findings revealed that transaction prices had a significantly negative impact on the firm's future value. However, this negative effect was mitigated in the opposite direction if the acquirer faced highly competitive intensity. Moreover, in the case of mergers and acquisitions between companies in different industries, this mitigating effect became even more pronounced. The study carries several theoretical implications. It quantitatively demonstrated that the effects of corporate mergers and acquisitions, particularly the effects of transaction prices, influence the corporation's value. These effects are moderated by the corporation's competitive environment and the characteristics of the merger and acquisition, including whether it involves companies in different industries. The research also has significant implications for practical corporate merger and acquisition applications. Practitioners should analyse synergies and fair values with target companies and comprehensively consider the competitive intensity of the company's markets that can be effectively accessed through mergers and acquisitions when anticipating the effects of mergers and acquisitions.

Funding: This study received no specific financial support.

Institutional Review Board Statement: The Ethical Committee of the Mutah University, Jordan has granted approval for this study (Ref. No. 150/2023).

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Data Availability Statement: The corresponding author may provide study data upon reasonable request.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: Performed conceptualization, primary writing, data analysis, text writing, and final review, A.N.A.; performed literature review, data collection, and validation of analyses, A.S.A-Q., S.M.M. and M.M.A. All authors have read and agreed to the published version of the manuscript.

1. Introduction

The strategic use of mergers and acquisitions (M&A) has significantly impacted the transformation of several organizations throughout history. Various studies have been conducted to understand why firms seek M&A strategies. Theories of Industrial Organization suggest that the two most common reasons for M&A activities are efficiency gains and strategic rationality (Dua, 2023).

Mergers and acquisitions are increasingly being viewed as a strategic response to the intensification of competition from globalization and the high degree of market uncertainty. According to Batista, Lamounier, and Mário (2023), an M&A process can result in visible outcomes, such as an increase in the company's size and revenue. Other positive impacts are evident, including increased market share, profitability, productivity, flexibility, and cost reduction. These tangible benefits make M&A an attractive strategy in the business world. Additionally, M&A helps distribute risks from a managerial perspective and enhances operational efficiency, ultimately benefiting long-term corporate performance (Chu, Chu, & Liu, 2021). It can be a core driver of inorganic growth, actively harnessing external capabilities and experiences (Ying-Yen & Studio, 2023). Companies acquire complementary businesses or those operating in different industries to diversify their revenue sources and mitigate risks, including market fluctuations (Kibunja, Matanda, & Roche, 2023). Furthermore, due to the impact of COVID-19, recent circumstances have made corporate restructuring and expanding revenue areas inevitable. As a result, M&A is being considered as a key strategy for achieving these goals (Tarighi, Hosseiny, Akbari, & Mohammadhosseini, 2023). This perspective is being advocated, and the importance of M&A is being emphasized even more (Suryaningrum, Abdul Rahman, Meero, & Cakranegara, 2023).

Research indicates that an M&A transaction price should be balanced considering the proportion of corporate assets (Mun, Koh, & Jang, 2022). The impact on the valuation of corporate value can vary if the acquisition cost is excessively high or low compared to the corporate assets (Kwilinski, Drobyazko, & Derevyanko, 2019). It has been observed that M&A transaction prices tend to be higher than the fair value of the target company (Haapa, 2023). Higher acquisition costs relative to corporate assets may be necessary for certain economic situations, such as inflation or high market uncertainty (Arroyabe & Hussinger, 2023). Therefore, the impact of the M&A transaction price on corporate value is still multifaceted (Umashankar, Bahadir, & Bharadwaj, 2022) and empirical studies have shown inconsistent conclusions regarding the relationship between the M&A transaction price and corporate value, with some studies reporting positive influence (Gupta, Raman, & Tripathy, 2023; William, 2023) while others suggest negative or mixed results (Chen & Young, 2010; Rahim & Ching Pok, 2013). Moreover, recent studies suggest that analysing the impact of mergers and acquisitions (M&A) transaction prices on corporate value should go beyond the simple relationship to include the environmental variables surrounding the company (Giannopoulos, Lianou, & Elmarzouky, 2023; Li, Redding, & Xie, 2021). M&A can positively influence market stakeholders, mainly due to resource allocation and expansion of competitiveness, particularly in highly competitive industries (Ljubownikow & Ang, 2020). In addition, companies require innovation paradigms and external resource utilization to maintain a competitive edge, which drives them to diversify their business into other industries (Dua, 2023; Suo, Yang, & Ji, 2023). Therefore, examining how M&A transaction price affects corporate value and under what circumstances M&A can be more effectively executed is essential. This nuanced analysis is crucial for shareholders to receive positive returns and for companies to generate value from M&A activities. This study could resolve the inconsistencies in the existing literature and offer a deeper understanding of the dynamics of mergers and acquisitions through its purpose, which was to examine whether the industry competition level and diversification can mitigate the negative effect of M&A transaction price on corporate value. Thus, the current study uniquely contributes to the existing literature by providing empirical evidence from developing economies, especially Jordan, on how corporations can gain positive outcomes from M&A activities.

This article is structured as follows: Section 2 provides a brief review of theoretical aspects; Section 3 outlines the research methodology, followed by the data analysis and presentation of results and results discussion in Sections 4 and 5, respectively; the article concludes with the conclusions, practical and theoretical implications, study limitations, and future research in Sections 6, 7, and 8, respectively.

2. Theoretical Background

2.1. Mergers and Acquisitions Transaction Price

When two companies come together, it is often called a merger or acquisition. While these terms are used interchangeably, they are slightly different. In a merger, the resources and operations of two separate companies are combined to create a brand-new entity. In this process, the original owners of both companies retain their stakes in the newly formed entity. On the other hand, in an acquisition, one company acquires the shares and operations of another company, resulting in the absorbed company ceasing to exist (Kumar, 2019).

The distinction between "merger" on the one hand and "acquisition" or "takeover" on the other is often related to the size of the involved parties in the process (Bekhuis, 2023). A merger happens when two or more similar businesses join to create a new entity established explicitly for this purpose. On the other hand, an acquisition takes place when one of the businesses involved is larger than the other and it acquires a smaller company (Snow, 2023). The size of the businesses involved does not necessarily determine whether it is a merger or an acquisition. While it is often the case that a larger business acquires a smaller one, mergers between large and smaller businesses, where both merge into a new entity, are also common. Additionally, its not unusual for a smaller company to acquire a larger one (Suryaningrum et al., 2023).

Therefore, a merger can be defined as a situation where all businesses fundamentally lose their independence, not necessarily their identity. In contrast, an acquisition occurs when the acquiring business retains its independence, and the acquired entity, directly or indirectly, becomes part of the acquirer (Asaolu, 2023).

Mergers and acquisitions operations can be divided into three main types: horizontal, vertical, and conglomerate. Horizontal mergers involve parties operating in the same industry. In most cases, the goal behind such action is to reduce the number of competitors and increase market presence, according to Suryaningrum et al. (2023). On the other hand, vertical operations involve companies that are not strictly in the same sector but are part of the production chain. In this case, the rationale is to reduce a step in the production chain by bringing one of them within their competencies. Finally, conglomerate mergers occur in different markets. In this context, the strategy behind the process is to develop mechanisms that hinder the entry of new players into the market, as Canales, De Souza, and Da Motta (2023) stated.

The M&A transaction price is typically set higher than the pre-acquisition market value of the target firm (Poramapojn & Wiboonchutikula, 2023). This is because the acquirer company adds intangible assets (goodwill), among other factors, to the fair value, which considers similar assets in the market or the market trading price of the company when measuring the target firm's transaction price (Hübscher & Martynkiewitz, 2021). Furthermore, depending on the acquirer's strategic decisions, additional amounts can be paid with the expectation of synergistic effects with the target firm (Maha, Aevoae, Viorică, & Dicu, 2023). These additional amounts may be higher depending on the competitive environment surrounding the M&A (Just, Honold, & Meckl, 2023). These factors contribute to the final M&A transaction price being determined at a higher price than the pre-acquisition market value of the target firm, and the difference between this price and the fair value can be interpreted as a premium at the time of the M&A transaction (Bebenroth & Ahmed, 2023). Most previous studies have indicated a tendency for excessive premiums to be paid in merger and acquisition transactions, resulting in the overvaluation of the transaction value (Zhang, Zhang, Yu, & Ma, 2023). Interestingly, Brahma, Boateng, and Ahmad (2023) also discovered a close association between the personal characteristics of the company's Chief Executive Officer(CEO) and the determination of excessive premiums in transaction prices. Specifically, they revealed that CEO hubris, or excessive self-confidence, quantitatively explains a significant portion of merger and acquisition premiums. Recent corporate performance and favorable media coverage significantly influence CEO hubris and self-confidence, which has a negative impact on the interests of acquiring company shareholders in mergers and acquisitions (Can & Dizdarlar, 2022). As a result, CEO's personal judgements may influence corporate mergers and acquisitions rather than careful methodical decision-making processes, and if the market (shareholders) is concerned about this trend, it may respond negatively to high transaction price.

2.2. Corporate Value

According to Dirman (2020), the value of a company is calculated based on its future cash flows, discounted to its present value. In other words, the projected performance of a company is the primary driver of its value. The generated returns, discounted at a rate above the cost of capital for investments, are what determine this. Conversely, Ilham, Akhyar, and Maimunah (2023) posit that a company's economic value is determined by its operational results, discounted invested capital, and the market value added. This is the basis for Economic Value Added (EVA), which measures a company's financial performance based on its wealth creation. According to Ehrbar and Stewart III (1999), EVA is the only performance measure directly linked to a company's intrinsic market value.

Therefore, it is evident that operational results are crucial in determining a company's value and, consequently, in measuring its performance during mergers and acquisitions. Metrics like EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization), EBIT (Earnings before Interest and Taxes), net profit, and sales growth are essential in measuring company value creation. Additionally, Campa and Hernando (2004) assert that these variables impact the creation of synergies in mergers and acquisitions.

Apart from these operational metrics, there's Tobin's Q theory, developed by Brainard and Tobin (1968) and Tobin (1969), which helps companies understand the rationale behind investment decisions. The authors noted that investments are encouraged when the replacement cost of a firm's physical assets is lower than the market value of its shares. Thus, Tobin's Q is an indicator for investment decision-making, as it summarizes information about a company's future projections. It doesn't require further analysis or additional parameters for future investment decisions.

2.3. The Transaction Price of Mergers and Acquisitions and Corporate Value

Previous research on mergers and acquisitions (M&A) has suggested that such activities negatively impact corporate value (Arthur & Khindanova, 2023; Bianconi & Tan, 2019; Jain, Kashiramka, & Jain, 2020). While there are instances where M&A benefits shareholders, it tends to favour the target firm's shareholders (Ang, Daher, & Ismail, 2019). Conversely, acquirer shareholders often experience adverse effects following the merger announcement (Dixit, 2020). Moreover, previous studies have suggested that excessive premiums may be paid in merger and acquisition transactions, leading to overvaluation of the transaction value (Zhang et al.,

2023). This may negatively impact the interests of shareholders in acquiring companies. Zhang and Teo (2023) found that merger and acquisition transaction prices are often measured and paid excessively compared to the expected transaction gains in the market. They demonstrated that excessively paying premiums negatively impacts the cumulative abnormal returns of both acquiring and target companies.

Brahma et al. (2023) also reported that excessive premiums in mergers and acquisitions have a negative impact on the interests of acquiring company shareholders. When a high premium is attached to the transaction price compared to the expected market effects, the market reacts negatively, ultimately leading to a decline in the acquiring company's stock price.

While some studies suggest that mergers and acquisitions are pursued to impact the company positively, other studies based on the agency theory perspective view corporate diversification as a result of the managerial pursuit of personal interests (Seth, Song, & Pettit, 2002; Zhu & Zhu, 2016). In other words, managers may pursue mergers and acquisitions for personal gain even if they know it would lower the company's value (Bauguess & Stegemoller, 2008; Geiger & Schiereck, 2014). If some shareholders hold such a perspective, they may have a negative view of the high valuation of the target company's transaction value.

On the other hand, Kuvandikov, Pendleton, and Higgins (2020) found that the payment of premiums during mergers and acquisitions leads to workforce reductions, ultimately negatively impacting corporate performance after the merger and acquisition. Based on the above, the first hypothesis is:

H.: The transaction price of mergers and acquisitions negatively impacts the corporate value of acquiring firms.

2.4. Industry Competition Intensity, M&A Transaction Price, and Firm Value

To comprehend the factors that affect corporate performance in mergers and acquisitions (M&A), it is crucial to consider various aspects beyond transaction prices, including research and development (R&D) expenditure and the level of competition in the industry (Kwon, Kim, & Lee, 2020; Lee, Byun, & Park, 2019). These factors play a significant role in determining how companies operate within the M&A process.

In industries marked by high competition, companies often view M&A as a strategic tool to expand their market reach, achieve growth, and enhance operational efficiency (Bhattacharyya, 2019; Jin, Leccese, & Wagman, 2023; Yu & Yan, 2022). For stakeholders assessing firm value, resource allocation toward M&A may be perceived as necessary investments that involve high transaction costs (Long, Luo, Sun, & Zhong, 2023). To maintain and expand their competitive edge, companies operating in such industries require continuous innovation and performance improvement (Ahmed et al., 2023; Suo et al., 2023). Although high transaction costs associated with M&A can negatively impact firm value (Segal, Guthrie, & Dumay, 2022), it can also be seen as a compensatory strategy that can expand competitive advantage for stakeholders by creating operational synergies based on management integration and effective resource allocation, depending on the level of competition. Functional synergy can occur with such integration as the basis, allowing for cost savings by removing redundant functions and effective resource utilization. Furthermore, achieving economies of scale by securing more suppliers and customers can provide greater bargaining power, potentially contributing to profitability and increased corporate value. In contrast, in low-competition industries, the impact of transaction costs on firm value may be limited. Mergers and acquisitions in such industries can lead to resource allocation, may limit cost savings, reduce incentives for innovation, and not positively impact market dominance (Kaneko & Kajikawa, 2023). Specifically, stakeholders evaluating firm value in low-competition industries may perceive that the high transaction costs incurred by companies engaging in mergers and acquisitions do not guarantee an increase in company value. Based on the above, the second hypothesis is:

 H_{2} : In industries characterized by high levels of competition, the negative impact of transaction prices on corporate value is mitigated.

2.5. Diversification in Different Industries, M&A Transaction Price, and Firm Value

The diversification strategy through mergers and acquisitions (M&A) across different industries has been extensively studied, especially when companies in highly competitive industries engage in such activities. Market stakeholders may favour M&A from the standpoints of resource allocation and rising competitiveness (Ljubownikow & Ang, 2020). High competition levels in the market incentivize companies to invest more in innovation (Haucap & Stiebale, 2023). Therefore, research findings have reported that acquiring external companies or products can provide faster and more cost-effective solutions in the initial response phase to the competition (Klueter, Moreira, & Ofoedu, 2023). Similarly, mergers and acquisitions (M&A) can drive innovation among companies, mainly when businesses from different industries with unique knowledge and resources are acquired (Grimpe, Hussinger, & Sofka, 2023). Diversifying into various industries through M&A enables companies to develop effective strategies for entering new markets, securing capabilities, and driving long-term growth (Oliveira, Roth, & Ponte, 2003). When growth and innovation opportunities become limited in the current industry, mergers and acquisitions can provide fresh prospects by transferring technology patents and legal rights between different categories (Suo et al., 2023). Studies reveal that external diversification with foreign companies can enhance corporate value compared to internal diversification in the domestic market (Batsakis, Wood, Azar, & Singh, 2018). Furthermore, diversification can lead to cash flow stability and the formation of internal capital markets (Cerrato, La Rocca, & Alessandri, 2023). Diversifying across different industries is recognized as an innovative and rational growth strategy that actively leverages external resources, and market stakeholders view it as a strategic move that signals a company's commitment to long-term growth, ultimately leading to increased market value (Frésard, Hege, & Phillips, 2017). Based on the above, the third hypothesis is:

 H_s : When companies acquire firms in unrelated industries (heterogeneous industries), the negative relationship between transaction prices and corporate value is further mitigated in industries with high competition levels.

2.6. Research Model

The comprehensive research model for this study is depicted in Figure 1.



Figure 1. Research model.

3. Research Methodology

3.1. Sample Selection

For this study, a carefully selected sample of companies that underwent M&A transactions between 2017 and 2022 was analysed. The focus of this research was on companies listed in Jordan's Securities Depository Centre (SDC), the Companies Control Department, and the Amman Stock Exchange. These prominent enterprises considerably impact the Jordanian economy, making them the optimal choice for this study. To extract the M&A information for the sample companies, the SDC Database was used, revealing 480 M&A transactions involving 120 companies over the observation period. Furthermore, financial information for the acquiring companies was obtained using SDC, the Companies Control Department, and the Amman Stock Exchange. While some data limitations were encountered during the data collection, the final sample consisted of 108 companies with 402 M&A transactions.

3.2. Variables Measurement

In the study conducted by Bhargave and Tandon (2023) Tobin's Q was introduced as a measure of corporate value. Tobin's Q is calculated by dividing a firm's market value by its replacement cost and has been widely used in various studies to measure corporate value (Alsmady, 2023; Bhargave & Tandon, 2023). Tobin's Q was calculated in this study by substituting the replacement cost with the book value of assets, following prior research (Hussain et al., 2023).

The study also measured the annual total M&A transaction price as a ratio of the transaction price to assets. This ratio is a well-known key indicator representing the relative size of transactions (Lukas, Pereira, & Rodrigues, 2023). To identify firms in highly competitive industries, the Herfindahl-Hirschman Index (HHI) was calculated for the industries to which the sample companies belonged (Chang & Yoo, 2023). HHI represents the concentration of firms in the same industry and is calculated as the sum of squares of market shares of firms in a particular industry (Barka, Benkraiem, Hamza, Lakhal, & Vigne, 2023). This study assumed that all firms within the same industry have the same industry concentration, and lower HHI values indicate intense competition within the market (Ren, Cao, Liu, & Han, 2023). The industries were classified based on the four-digit Standard Industrial Classification (SIC) codes, and HHI values were calculated for each industry (Chang & Yoo, 2023). Industries defined with HHI values of 1300 or lower were considered low-concentration industries with intense competition, following guidelines by the Securities Depository Centre (SDC) of Jordan and the Companies Control Department.

In addition, the study determined whether an M&A transaction was a cross-industry merger based on the four-digit SIC codes. A dummy variable assigned a value of 1 if a company had a history of acquiring firms with different SIC codes among all M&A transactions performed annually and 0 if not.

Finally, various financial factors such as firm size, return on equity, R&D investment ratio, advertising expenditure ratio, fixed asset ratio, and revenue growth rate were considered in the study as they were expected to impact the dependent variable, corporate value. Year dummies were also included in the model to control for year-specific effects.

Table 1 explains the calculation of the variables mentioned above.

1 able 1, fyleasurement of Variables.					
Variable name		Measurement method			
TQ	"Firm value"	"Market value/Assets"			
TR	"Acquisition price ratio"	"Aggregate purchase price in mergers and			
		acquisitions/Total assets."			
SIZE	"Company size"	"Asset size"			
ROE	"Return on equity"	"Current net profit/Owner's equity"			
RND	"Research and development expenses"	"Research and development expenses/Revenue"			
ADV	"Advertising expenses"	"Advertising expenses/Revenue"			
TANG	"Fixed asset ratio"	"Fixed assets/Total assets"			
SG	"Revenue growth rate"	"(Current period revenue - previous period revenue)			
		/ Previous period revenue"			
HCOM	"Highly competitive industry status"	"1 if the HHI calculated based on SIC codes is 1300			
		or lower, 0 otherwise"			
INDF	"Cross-industry mergers and	"1 if the acquiring company and the target company			
	acquisitions (M&A) status"	have different SIC codes, 0 otherwise"			
YD	Year	"Dummy variable for the year of M&A occurrence"			

Table 1. Measurement of variables

3.3. Analysis Model

In Model 1, the dependent variable is Tobin's Q (TQ), and the independent variable is the ratio of the acquisition price (TR). Control variables included the highly competitive industry dummy (HCOM), firm size (SIZE), return on equity (ROE), R&D investment ratio (RND), advertising investment ratio (ADV), tangible asset ratio (TANG), and sales growth rate (SG). Additionally, year dummies were included in the model to control the timing of M&A transactions.

$$\begin{split} TQ_{it} &= \beta_0 + \beta_1 TR_{it} + \beta_2 HCOM_{it} + \beta_3 SIZE_{it} + \beta_4 ROE_{it} + \beta_5 RND_{it} + \beta_6 AVD_{it} + \beta_7 TANG_{it} + \beta_8 SG_{it} + \\ &\sum_{p=1}^{6} \gamma_p YD_p + \epsilon_{it,i} = 1, \dots, 108, t = 1, \dots, 6 \end{split}$$

The second model aimed to confirm that the impact of the acquisition price-to-firm value ratio on corporate value is positively moderated in highly competitive industries. The model incorporated the interaction term between the M&A transaction price ratio and the highly competitive industry dummy to do this.

$$\begin{split} TQ_{it} &= \beta_0 + \beta_1 TR_{it} + \beta_2 TR_{it} \; X \; HCOM_{it} + \beta_3 SIZE_{it} + \beta_4 ROE_{it} + \beta_5 RND_{it} + \beta_6 AVD_{it} + \beta_7 TANG_{it} + \\ \beta_8 SG_{it} + \sum_{p=1}^{6} & \gamma_p YD_p + \epsilon_{it}, i = 1, \dots, 108, t = 1, \dots, 6 \end{split}$$

These two models were created to test Hypothesis 1, which examines the connection between the price of merger and acquisition transactions and enterprise value. Furthermore, they were developed to confirm whether the relationship is affected by high-competition industries, as proposed in Hypothesis 2. This study presented four models, with Models 1 and 2 identical to those mentioned earlier, while Models (3) and (4) apply the equation of Model (2) to the panel of companies that have conducted cross-industry and same-industry mergers and acquisitions, respectively, to test Hypothesis 3. Models (3) and (4), on the other hand, are models that apply the equation from Model 2 to firms that conducted cross-industry and same-industry mergers and acquisitions, respectively. Hypothesis 3 was tested with Models (3) and (4). Before the analysis, variables in the models underwent Winsorizing, which adjusted them to the values at the 1st and 99th percentiles to avoid issues caused by outliers (Hrazdil, Kim, & Li, 2023).

4. Empirical Results

4.1. Basic Statistics

Table 2 presents the statistical data for various variables for the companies included in the sample. On average, the market value of the companies is twice their book value, with a mean of 1.93, as measured by Tobin's Q. The top-performing companies, with the highest merger and acquisition transaction amounts, invested approximately 49% of their assets, with a mean ratio of 0.06. To adjust for the size of each company, the mean company size is reported as 8.79, with a return on equity of 3%. The companies in the sample allocated 3% and 2% of their total revenue to research and development and advertising expenses, respectively. The ratio of tangible assets to total assets for the sample companies was 18%, and they exhibited an average annual sales growth rate of 9%. Dummy variables for high-competition industries and cross-industry mergers and acquisitions are reported as 0.29 and 0.41, respectively, indicating that 29% of the total sample is in high-competition industries, and 41% conducted cross-industry mergers and acquisitions.

Table 3 displays the correlation analysis results between variables. The highest correlation coefficient (p = -0.39) was found between the enterprise value and the company size variables, and no other variable pairs had a correlation coefficient greater than 0.5. The model was estimated using pooled Ordinary Least Squares (OLS), and VIF values were calculated to check for multicollinearity issues. The average VIF value was reported as 1.47, suggesting no multicollinearity issues in the model.

		1		
Variable	Mean	Standard deviation	Minimum value	Maximum value
тQ	2.15	1.17	0.89	9.97
TR	0.06	0.10	0.01	0.49
SIZE	8.79	1.28	5.91	12.69
ROE	0.03	0.03	- 0.19	0.14
RND	0.03	0.05	0.00	0.32
ADV	0.02	0.03	0.00	0.12
TANG	0.18	0.19	0.00	0.81
SG	0.09	0.017	- 0.34	0.83
HCOM	0.29	0.41	0.00	1.00
INDF	0.41	0.46	0.00	1.00

Table 2. Descriptive statistics.

Table 3.	Corre	lation	between	variabl	es
----------	-------	--------	---------	---------	----

Variable	1	2	3	4	5	6	7	8
тQ	1.00							
TR	0.02	1.00						
SIZE	-0.39***	-0.13***	1.00					
ROE	-0.14***	-0.09***	0.14***	1.00				
RND	0.31***	0.06**	-0.05*	-0.09***	1.00			
ADV	0.22***	-0.02	0.04*	-0.10***	0.09**	1.00		
TANG	-0.14***	-0.02	-0.05*	-0.09***	-0.18***	-0.07**	1.00	
SG	0.02	0.39***	-0.08***	-0.02	0.02	-0.04	-0.03	1.00

* p < 0.1, ** p < 0.05, *** p < 0.01 Note:

4.2. Hypothesis Testing Results

This study applied a fixed effect model, considering the characteristics of longitudinal data, and performed robust regression to address heteroscedasticity issues. A total of 402 observations for 108 companies were included in the estimation, and year dummies were incorporated into the model to control for year-specific effects. The explanatory power of each model was reported to be approximately 23% for Models 1 and 2 and around 38% for Models (3) and (4). The reason why Models (3) and (4) have a higher level of explanatory power is because they were estimated using subsamples that showed mergers and acquisitions across industries and within industries, respectively. In each subsample, the independent variables explained the total variation in the dependent variable Tobin's Q relatively better than in the entire sample.

Table 4. Panel regression results Variables Model (1) Model (2) Model (3) Model (4) (Entire sample) (Entire sample) (Heterogeneous (Homogeneous industry M&A) industry M&A) TR -0.498** -0.899*** -1.142** -1.089*** (0.198)(0.251)(0.495)(0.397)HCOM 0.695** 0.361 0.2580.142 (0.233)(0.246)0.146(0.281)TR*HCQM 1.585* 0.798*0.722-(0.398)(0.831)(0.491)-0.698*** -0.688** -0.735*** SIZE -0.524** (0.131)(0.119)(0.120)(0.198)ROE -0.497 -0.489 -1.512-0.970 (0.691)(0.691)(1.119)(0.930)RND -5.830 -.0511 -14.779*** 3.015 (5.221)(5.790)(1.114)(4.826)ADV 15.711 9.776* 34.504** 15 802 (11.891)(5.114)(11.885)(16.338)TANG 0.8850.814 0.7861.661 (0.898)(0.907)(1.253)(1.224)SG 0.533*** 0.524*** 0.411** 0.831** (0.150) (0.197)(0.395)(0.152)Constant 8.772*** 8.690*** 7.967*** 7.822*** (1.018)(1.021)(1.366)(1.960)Fixed effect Yes Yes Yes Yes Year effect Yes Yes Yes Yes Observations 402402210 193 Number of firm 1081086874Adj. R-squared 0.2280.233 0.388 0.379

The standard errors are presented in parentheses to ensure robustness. *p < 0.1, **p < 0.05, *** p < 0.01. Note:

In Table 4, the analysis of the study hypotheses is presented, which aims to validate the relationship between merger and acquisition (M&A) transaction price, firm value, and industry competitiveness. Model 1 tested the first hypothesis that the M&A transaction price negatively affect company value. The analysis results indicated a significant negative impact ($\beta = -0.498$; p < 0.05) of the M&A transaction price ratio on company value, which supports hypothesis 1. The findings suggest that when the M&A transaction price is high, the company value decreases.

Model 2 investigated the second hypothesis, which suggests that the negative impact of the M&A transaction price on company value will be mitigated in highly competitive industries. The results show that the M&A transaction price negatively impacts company value ($\beta = -0.899$; p < 0.01), while the dummy variable for highly competitive industries is not statistically significant ($\beta = 0.258$; p > 0.1). However, the interaction term between the M&A transaction price and the dummy variable for highly competitive industries had a significant positive impact on firm value ($\beta = 0.798$; p < 0.1). These findings suggest that the presence of highly competitive industries positively moderates the negative impact of the M&A transaction price, thus supporting hypothesis 2.

To provide further insight, the marginal effect of the M&A transaction price on firm value in highly competitive industries in Model 2 was estimated. The results indicate a significant reduction (-0.101 = -0.899 + 0.798) in the impact of the M&A transaction price on company value compared to the impact estimated in Model (1) (-0.498). These findings highlight the crucial role of the competitive nature of the industry in determining the impact of the M&A transaction price on firm value.

Finally, Models (3) and (4) test the third hypothesis, which posits that the impact of the M&A transaction price on firm value differs depending on the industry's heterogeneity. Model (3) examines the impact of the M&A transaction price on firm value in heterogeneous industries, while Model (4) investigates the same for homogeneous industries. The results of Model (3) indicate a positive impact of the M&A transaction price on firm value ($\beta = 1.585$; p < 0.1) for firms in highly competitive and heterogeneous industries engaged in M&A. In contrast, Model (4) shows a negative impact of the M&A transaction price on company value ($\beta = -1.089$; p < 0.01) in homogeneous industries, regardless of competition levels.

5. Results Discussion

The study found that merger and acquisition transaction prices have a significant negative impact on the future value of the acquiring company, which is consistent with previous research (Arthur & Khindanova, 2023; Bianconi & Tan, 2019; Jain et al., 2020). This is not surprising, as the M&A transaction price is typically set higher than the pre-acquisition market value of the target firm (Poramapojn & Wiboonchutikula, 2023). This is because intangible assets, such as goodwill, are added to the fair value by the acquirer, among other factors (Hübscher & Martynkiewitz, 2021). Additionally, extra amounts may be paid in anticipation of synergy effects with the target firm (Maha et al., 2023). Furthermore, the CEO's characteristics, including hubris or excessive self-confidence, explain a significant portion of M&A premiums quantitatively (Brahma et al., 2023). These factors contribute to the final M&A transaction price being determined at a higher price than the pre-acquisition market value of the target firm, and the difference between this price and the fair value can be interpreted as a premium at the time of the M&A transaction (Bebenroth & Ahmed, 2023). Unfortunately, this premium ultimately negatively affects the interests of acquiring company shareholders (Can & Dizdarlar, 2022).

The study also found that highly competitive industries have a positive effect on mitigating the negative impact of M&A transaction prices on corporate value. Previous literature supports this discovery. In these industries, companies use M&A to expand their market reach, achieve growth, and improve operational efficiency (Bhattacharyya, 2019; Jin et al., 2023; Yu & Yan, 2022). Companies in such industries must continuously innovate and improve their performance to maintain and enhance their competitive edge (Ahmed et al., 2023; Suo et al., 2023). Although M&A transaction costs can negatively affect the value of a firm (Segal et al., 2022), they can also be viewed as a compensatory strategy that expands competitive advantage by creating operational synergies through effective resource allocation and management integration, depending on the level of competition. By integrating functions, cost savings can be achieved by eliminating redundant functions and utilizing resources effectively. Additionally, securing more suppliers and customers can increase economies of scale, provide greater bargaining power, and potentially increase profitability and corporate value.

Finally, the study found that M&A transactions can have a positive impact on the value of firms in highly competitive and heterogeneous industries. In contrast, it negatively impacts companies in homogeneous industries, regardless of competition levels. Existing literature supports this conclusion. Market stakeholders often view M&A as a way to allocate resources and expand competitiveness (Ljubownikow & Ang, 2020). In highly competitive markets, companies are incentivized to invest more in innovation (Haucap & Stiebale, 2023), making M&A a cost-effective solution in the initial response phase to competition (Klueter et al., 2023). Additionally, M&A can drive innovation, mainly when businesses from different industries with unique knowledge and resources are acquired (Grimpe et al., 2023). Diversification through M&A can also enable

companies to develop effective strategies for entering new markets, securing capabilities, and driving long-term growth (Oliveira et al., 2003). Thus, the company's value increases.

6. Conclusion

The traditional perspective on mergers and acquisitions (M&A) has often focused on the negative impact of transaction prices on company value. However, M&A is a vital strategic tool for growth and survival. Recent literature has called for a more comprehensive analysis of the effects of M&A, taking into account the corporate environment and characteristics. In response, this study utilized panel data on corporate M&A in Jordan from 2017 to 2022. The goal was to examine whether industry competition and heterogeneity could mitigate the negative effect of M&A transaction prices on corporate value. The study revealed that high levels of industry competition and heterogeneity can have a positive impact on company value in the context of M&A transaction prices. These findings significantly contribute to the existing literature and offer valuable insights for practitioners.

7. Practical and Theoretical Implications

The current study has several significant theoretical implications. Firstly, it offers a quantitative demonstration of how corporate mergers and acquisitions impact the value of the acquiring company, focusing on the impact of transaction size. The study also emphasises the significance of the competitive environment and particular merger or acquisition characteristics, such as whether the companies involved operate in various industries. These findings support the recent literature suggesting that a comprehensive analysis of mergers and acquisitions requires careful consideration of various factors.

Secondly, the study suggests a theoretical possibility that, under certain conditions, the price of corporate mergers and acquisitions could have a positive impact on the value of the acquiring company. This finding is particularly noteworthy, as previous research has focused on the adverse effects of mergers and acquisitions. The study's first hypothesis confirms this trend. It indicates that the impact of mergers and acquisitions on enterprise value may vary depending on the specific circumstances and strategies of the acquiring company.

From a practical standpoint, this study has significant implications for corporate decision-makers involved in mergers and acquisitions. It suggests that acquiring companies should not only consider the synergies and fair values of potential target companies but also consider the competitive intensity of the market in which they operate and the potential markets that could be accessed through mergers and acquisitions. For example, companies in industries characterized by high competition may find mergers and acquisitions to be a particularly effective growth strategy. Conversely, in situations where the competitive intensity is low or when considering mergers and acquisitions with companies in the same industry, careful decision-making is required to avoid overpaying premiums in the pricing of transactions.

8. Study Limitations and Future Research

The present research study has some limitations and areas for future exploration. Firstly, it relied on data from the Securities Depository Centre (SDC) and the Companies Control Department, which only included acquirer companies listed in the Jordanian market. Consequently, several companies that still needed to meet the criteria were excluded. To address this issue, future research could explore the effects of mergers and acquisitions involving unlisted acquirer companies or companies from different markets outside Jordan.

Secondly, the study analysed the impact of transaction prices on enterprise value by considering moderating variables such as industry competitiveness and target company industry. However, future research could introduce other moderating or mediating variables to achieve specific research objectives. For example, the model could be extended to include variables such as industry type, research and development (R&D) expenditures, and marketing costs to investigate the effects of mergers and acquisitions or transaction prices.

Thirdly, an extended model that accounts for stock market volatility could be proposed if the relevant data is available. Diversifying revenue sources across different industries could impact a company's cash liquidity and affect stock market volatility. Therefore, an expanded model could offer more comprehensive and insightful implications.

References

- Ahmed, R., Chen, Y., Benjasak, C., Gregoriou, A., Alrwashdeh, N. N. F., & Than, E. T. (2023). The performance of bidding companies in merger and acquisition deals: An empirical study of domestic acquisitions in Hong Kong and Mainland China. The Quarterly Review of Economics and Finance, 87, 168-180. https://doi.org/10.1016/j.qref.2020.09.003
- Alsmady, A. A. (2023). Accounting information quality, tax avoidance and companies' performance: The moderate role of political connection. International Journal of Professional Business Review, 8(1), 1. https://doi.org/10.26668/businessreview/2023.v8i1.622
- 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
- Arroyabe, M., & Hussinger, K. (2023). Acquisition experience and the winner's curse in corporate acquisitions. Applied Economics, 1-15. https://doi.org/10.1080/00036846.2023.2206108

- Arthur, C., & Khindanova, I. (2023). Technological acquisitions: The impact of innovation on stock performance. The Journal of Applied Business and Economics, 25(4), 252-274.
- Asaolu, A. A. (2023). The hubris manager and managerial irrationality: Investors' perception. Fuoye Journal of Management, Innovation and Entrepreneurship, 2(1), 91-105.
- Barka, Z., Benkraiem, R., Hamza, T., Lakhal, F., & Vigne, S. (2023). Institutional investor horizon and stock price synchronicity: Do product market competition and analyst coverage matter? *International Review of Financial Analysis*, 89, 102733. https://doi.org/10.1016/j.irfa.2023.102733
- Batista, A. T. N., Lamounier, W. M., & Mário, P. D. C. (2023). Does economic policy uncertainty affect M&A operations? Evidence from the Brazilian market. *BBR. Brazilian Business Review, 20,* 133-156. https://doi.org/10.15728/bbr.2023.20.2.2.en
- Batsakis, G., Wood, G., Azar, G., & Singh, S. (2018). International diversification and firm performance in the postacquisition period: A resource dependence perspective. *Journal of Business Research*, 93, 151-159. https://doi.org/10.1016/j.jbusres.2018.02.025
- Bauguess, S., & Stegemoller, M. (2008). Protective governance choices and the value of acquisition activity. Journal of Corporate Finance, 14(5), 550-566. https://doi.org/10.1016/j.jcorpfin.2008.09.011
- Bebenroth, R., & Ahmed, K. (2023). Influence of target industry growth on premiums in cross-border acquisitions. Multinational Business Review, 31(2), 242-265. https://doi.org/10.1108/MBR-06-2022-0088
- Bekhuis, T. L. (2023). Valuation and transaction price: Factors influencing the difference between valuation and transaction price of acquisitions in the Dutch SME market. Bachelor's Thesis, University of Twente.
- Bhargave, H., & Tandon, D. (2023). How does Tobin's Q respond to merger and acquisition announcements: Evidence of listed Indian firms. International Journal of Professional Business Review, 8(2), e01295. https://doi.org/10.26668/businessreview/2023.v8i2.1295
- Bhattacharyya, S. S. (2019). Mergers and acquisition by Indian firms: Managerial perspectives on challenges and solutions. In Dynamic perspectives on globalization and sustainable business in Asia. In (pp. 41-55): IGI Global. https://doi.org/10.4018/978-1-5225-7095-0.ch004.
- Bianconi, M., & Tan, C. M. (2019). Evaluating the instantaneous and medium-run impact of mergers and acquisitions on firm values. International Review of Economics & Finance, 59, 71-87. https://doi.org/10.1016/j.iref.2018.08.005
- Brahma, S., Boateng, A., & Ahmad, S. (2023). Board overconfidence and M&A performance: Evidence from the UK. *Review* of Quantitative Finance and Accounting, 1-29. https://doi.org/10.1007/s11156-023-01133-8
- Brainard, W. C., & Tobin, J. (1968). Pitfalls in financial model building. The American Economic Review, 58(2), 99-122.
- Campa, J. M., & Hernando, I. (2004). Shareholder value creation in European M&As. European Financial Management, 10(1), 47-81. https://doi.org/10.1111/j.1468-036X.2004.00240.x
- Can, R., & Dizdarlar, H. I. (2022). The effect of managers' overconfidence who have made mergers and acquisitions on the firm value. *Sosyoekonomi*, 30(54), 101-119. https://doi.org/10.17233/sosyoekonomi.2022.04.05
- Canales, M. P., De Souza, M. R., & Da Motta, L. G. (2023). Defining relevant markets in the digital era: Lessons from merger control in Brazil, Chile and Mexico. *GRUR International*, 72(3), 209-230. https://doi.org/10.1093/grurint/ikad002
- Cerrato, D., La Rocca, M., & Alessandri, T. (2023). When does unrelated diversification increase performance? The effects of financial context and contingencies. *Management Decision*, 61(13), 1-25. https://doi.org/10.1108/MD-02-2022-0225
- Chang, Y. J., & Yoo, J. W. (2023). How does the degree of competition in an industry affect a company's environmental management and performance? *Sustainability*, 15(9), 7675. https://doi.org/10.3390/su15097675
- Chen, Y. Y., & Young, M. N. (2010). Cross-border mergers and acquisitions by Chinese listed companies: A principalprincipal perspective. Asia Pacific Journal of Management, 27, 523-539. https://doi.org/10.1007/s10490-009-9150-7
- Chu, Y., Chu, J., & Liu, H. (2021). The impact of mergers and acquisitions on brand equity: A structural analysis. International Journal of Research in Marketing, 38(3), 615-638. https://doi.org/10.1016/j.ijresmar.2020.11.006
- Dirman, A. (2020). Financial distress: The impacts of profitability, liquidity, leverage, firm size, and free cash flow. International Journal of Business, Economics and Law, 22(1), 17-25.
- Dixit, B. K. (2020). Operating performance of acquirers after acquisition: Evidence from India. Journal of Indian Business Research, 12(3), 327-341. https://doi.org/10.1108/JIBR-08-2018-0204
- Dua, S. (2023). What motivates mergers and acquisitions in India? International Journal of the Economics of Business, 30(3), 293-314. https://doi.org/10.1080/13571516.2023.2256037
- Ehrbar, A., & Stewart III, G. B. (1999). The EVA revolution. Journal of Applied Corporate Finance, 12(2), 18-31. https://doi.org/10.1111/j.1745-6622.1999.tb00005.x
- Frésard, L., Hege, U., & Phillips, G. (2017). Extending industry specialization through cross-border acquisitions. The Review of Financial Studies, 30(5), 1539-1582. https://doi.org/10.1093/rfs/hhx008
- Geiger, F., & Schiereck, D. (2014). The influence of industry concentration on merger motives—empirical evidence from machinery industry mergers. *Journal of Economics and Finance*, 38, 27-52. https://doi.org/10.1007/s12197-011-9202-y
- Giannopoulos, G., Lianou, A., & Elmarzouky, M. (2023). The impact of M&As on shareholders' wealth: Evidence from Greece. Journal of Risk and Financial Management, 16(3), 199. https://doi.org/10.3390/jrfm16030199
- Grimpe, C., Hussinger, K., & Sofka, W. (2023). Reaching beyond the acquirer-target dyad in M&A-Linkages to external knowledge sources and target firm valuation. Long Range Planning, 56(3), 102321. https://doi.org/10.1016/j.lrp.2023.102321
- Gupta, I., Raman, T., & Tripathy, N. (2023). Impact of merger and acquisition on financial performance: Evidence from construction and real estate industry of India. FIIB Business Review, 12(1), 74-84. https://doi.org/10.1177/23197145211053400
- Haapa, J. A. (2023). Predictability of Nordic takeover targets-A multinomial approach. Master's Thesis, University of Vaasa.

- Haucap, J., & Stiebale, J. (2023). Non-price effects of mergers and acquisitions. Retrieved from DICE Discussion Paper No. 402, Heinrich Heine University Düsseldorf, Düsseldorf Institute for Competition Economics:
- Hrazdil, K., Kim, J.-B., & Li, X. (2023). The effect of the security and exchange commission's investigations into corporate social responsibility performance. *Sustainability*, 15(19), 14378. https://doi.org/10.3390/su151914378
- Hübscher, M. C., & Martynkiewitz, N. (2021). Intangibles in different industries. In: Heidecke, B., Hübscher, M.C., Schmidtke, R., Schmitt, M. (Eds) intangibles in the world of transfer pricing. Cham: Springer. https://doi.org/10.1007/978-3-319-73332-6_7.
- Hussain, S., Ali, R., Emam, W., Tashkandy, Y., Mishra, P., Fahlevi, M., & Matuka, A. (2023). Economic policy uncertainty and firm value: Impact of investment sentiments in energy and petroleum. *Sustainability*, 15(12), 9656. https://doi.org/10.3390/su15129656
- Ilham, R. N., Akhyar, C., & Maimunah, S. (2023). The influence of profit management and financial performance on company value in building materials construction Sub-Sector companies listed on the Indonesia stock exchange for the 2018-2021 period. Journal of Accounting Research, Utility Finance and Digital Assets, 1(4), 323-335. https://doi.org/10.54443/jaruda.v1i4.52
- Jain, S., Kashiramka, S., & Jain, P. (2020). Do frequent acquirers outperform in cross-border acquisitions? A study of Indian companies. *Review of International Business and Strategy*, 30(4), 491-514. https://doi.org/10.1108/RIBS-12-2019-0160
- Jin, G. Z., Leccese, M., & Wagman, L. (2023). M&A and technological expansion. Journal of Economics & Management Strategy, 1-22. https://doi.org/10.1111/jems.12551
- Just, R., Honold, D., & Meckl, R. (2023). Value relevance of goodwill accounting-how a forward-looking valuation approach guides goodwill recoverability. *Cogent Business & Management*, 10(3), 2262213. https://doi.org/10.1080/23311975.2023.2262213
- Kaneko, K., & Kajikawa, Y. (2023). Novelty score and technological relatedness measurement using patent information in mergers and acquisitions: Case study in the Japanese electric motor industry. Global Journal of Flexible Systems Management, 24(2), 163-177. https://doi.org/10.1007/s40171-022-00330-z
- Kibunja, M. J., Matanda, J., & Roche, C. (2023). Mergers & Acquisitions drivers and financial performance of non-financial firms listed at the Nairobi securities exchange, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 7(1), 406-418.
- Klueter, T. M., Moreira, S., & Ofoedu, C. (2023). Understanding the link between post-acquisition resource reconfiguration and technology out-licensing. *Journal of Management Studies*. https://doi.org/10.1111/joms.12968
- Kumar, B. R. (2019). Mergers and acquisitions in: Wealth creation in the world's largest mergers and acquisitions management for professionals. Cham: Springer. https://doi.org/10.1007/978-3-030-02363-8_1.
- Kuvandikov, A., Pendleton, A., & Higgins, D. (2020). The effect of mergers and acquisitions on employees: Wealth transfer, gain-sharing or pain-sharing? *British Journal of Management*, 31(3), 547-567. https://doi.org/10.1111/1467-8551.12386
- Kwilinski, A., Drobyazko, S., & Derevyanko, B. (2019). Synergetic and value effects in corporate mergers and acquisitions of international companies in Khalid S. Soliman (Ed.). Paper presented at the Proceedings of the 34th International Business Information Management Association Conference (IBIMA) 13-14 November 2019. Vision 2025: Education Excellence and Management of Innovations through Sustainable Economic Competitive Advantage in 2019 (pp. 9467-9471). Madrid, Spain: IBIMA Publishing.
- Kwon, J., Kim, C., & Lee, K. C. (2020). Moderating effect of the continental factor on the business strategy and M&A performance in the pharmaceutical industry for sustainable international business. Sustainability, 12(12), 4985. https://doi.org/10.3390/su12124985
- Lee, J. H., Byun, H. S., & Park, K. S. (2019). How does product market competition affect corporate takeover in an emerging economy? *International Review of Economics & Finance*, 60, 26-45. https://doi.org/10.1016/j.iref.2018.12.012
- Li, Y., Redding, K., & Xie, E. (2021). Organizational characteristics of cross-border mergers and acquisitions: A synthesis and classic case examples from around the world. *Journal of Organizational Change Management*, 34(1), 223-251. https://doi.org/10.1108/JOCM-01-2017-0008
- Ljubownikow, G., & Ang, S. H. (2020). Competition, diversification and performance. *Journal of Business Research*, 112, 81-94. https://doi.org/10.1016/j.jbusres.2020.03.002
- Long, W., Luo, L., Sun, H., & Zhong, Q. (2023). Does going abroad lead to going green? Firm outward foreign direct investment and domestic environmental performance. Business Strategy and the Environment, 32(1), 484-498. https://doi.org/10.1002/bse.3156
- Lukas, E., Pereira, P. J., & Rodrigues, A. (2023). On the determinants of the dynamic choice between mergers and tender offers. *Journal of Corporate Finance*, 83, 102489. https://doi.org/10.1016/j.jcorpfin.2023.102489
- Maha, L.-G., Aevoae, G.-M., Viorică, E.-D., & Dicu, R.-M. (2023). Determinant factors of M&As in emerging economies: The impact of financial performance in romanian minority acquisitions. *Economies*, 11(10), 241. https://doi.org/10.3390/economies11100241
- Mun, S. G., Koh, Y., & Jang, S. (2022). Which type of M&A makes an acquiring restaurant firm a star? profit-driven versus growth-driven M&A. *Cornell Hospitality Quarterly*, 63(3), 369-384. https://doi.org/10.1177/1938965520979174
- Oliveira, P. M., Roth, A. V., & Ponte, K. M. (2003). Cross-border mergers and acquisitions as a tool to transfer knowledge and foster competitive capabilities. *International Journal of Technology, Policy and Management, 3*(2), 204-223. https://doi.org/10.1504/IJTPM.2003.003890
- Poramapojn, P., & Wiboonchutikula, P. (2023). Determinants of goodwill and its impact on post-merger and acquisition performance in Thailand: A firm-level analysis. *Asia-Pacific Journal of Accounting & Economics*, 1-17. https://doi.org/10.1080/16081625.2023.2176328

- Rahim, M. N., & Ching Pok, W. (2013). Shareholder wealth effects of M & As: The third wave from Malaysia. *International Journal of Managerial Finance*, 9(1), 49-69. https://doi.org/10.1108/17439131311298520
- Ren, X., Cao, Y., Liu, P. J., & Han, D. (2023). Does geopolitical risk affect firms' idiosyncratic volatility? Evidence from China. International Review of Financial Analysis, 90, 102843. https://doi.org/10.1016/j.irfa.2023.102843
- Segal, S., Guthrie, J., & Dumay, J. (2022). Reframing mergers and acquisitions around stakeholder relationships: Economic, political and social processes. London: Taylor & Francis.
- Seth, A., Song, K. P., & Pettit, R. R. (2002). Value creation and destruction in cross-border acquisitions: An empirical analysis of foreign acquisitions of US firms. *Strategic Management Journal*, 23(10), 921-940. https://doi.org/10.1002/smj.264
- Snow, B. (2023). Mergers & acquisitions for dummies. Hoboken, NJ: John Wiley & Sons.
- Suo, L., Yang, K., & Ji, H. (2023). The impact of technological mergers and acquisitions on enterprise innovation: A review. Sustainability, 15(17), 12883. https://doi.org/10.3390/su151712883
- Suryaningrum, D. H., Abdul Rahman, A. A., Meero, A., & Cakranegara, P. A. (2023). Mergers and acquisitions: Does performance depend on managerial ability? *Journal of Innovation and Entrepreneurship*, 12(1), 1-23. https://doi.org/10.1186/s13731-023-00296-x
- Tarighi, H., Hosseiny, Z. N., Akbari, M., & Mohammadhosseini, E. (2023). The moderating effect of the COVID-19 pandemic on the relation between corporate governance and firm performance. Journal of Risk and Financial Management, 16(7), 306. https://doi.org/10.3390/jrfm16070306
- Tobin, J. (1969). A general equilibrium approach to monetary theory. Journal of Money, Credit and Banking, 1(1), 15-29. https://doi.org/10.2307/1991374
- Umashankar, N., Bahadir, S. C., & Bharadwaj, S. (2022). Despite efficiencies, mergers and acquisitions reduce firm value by hurting customer satisfaction. *Journal of Marketing*, 86(2), 66-86. https://doi.org/10.1177/00222429211024255
- William, R. (2023). Comparing company performance based on types of mergers and acquisitions in the financial sector. Jurnal Scientia, 12(2), 1402-1409. https://doi.org/10.58471/scientia.v12i02.1387
- Ying-Yen, L., & Studio, L. Y.-Y. (2023). Expansion of industrial scale through mergers and acquisitions-disney land co. case. *International Journal of Organizational Innovation*, 16(1), 60-68.
- Yu, M., & Yan, A. (2022). Can digital finance accelerate the digital transformation of companies? From the perspective of M&A. *Sustainability*, 14(21), 14281. https://doi.org/10.3390/su142114281
- Zhang, J., & Teo, B. S. (2023). Market mispricing timing and post-acquisition performance: Evidence from Chinese a-share firms. Frontiers in Business, Economics and Management, 10(2), 249-256.
- Zhang, Y., Zhang, Q., Yu, X., & Ma, Q. (2023). Equity overvaluation, insider trading activity, and M&A premium: Evidence from China. *Pacific-Basin Finance Journal*, 80, 102047. https://doi.org/10.1016/j.pacfin.2023.102047
- Zhu, H., & Zhu, Q. (2016). Mergers and acquisitions by Chinese firms: A review and comparison with other mergers and acquisitions research in the leading journals. Asia Pacific Journal of Management, 33, 1107-1149. https://doi.org/10.1007/s10490-016-9465-0