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MERGERS AND ACQUISITIONS: THE ROLE OF DUE DILIGENCE IN M&A OUTCOMES

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The article establishes due diligence as the essential factor which decides M&A transaction success through its core purpose. Organizations need due diligence (hereinafter referred to as “DD”) as their essential M&A success factor because it enables them to reach their objectives through unstable market conditions and complicated business operations. The Bain & Company survey shows that most failed deals result from various factors which include DD-related issues that lead to incorrect synergy assessments and failed due diligence that missed important problems and target companies that received artificial enhancements for sale purposes and targets that lack proper strategic alignment and teams ignored their concerns while participating in the competitive auction process. The research findings show that DD serves as the fundamental component because it establishes the level at which organizations achieve their strategic decision implementation regarding integration and synergy assessment and risk management.

The research uses secondary data analysis to develop multiple proxy variables which measure DD quality and then evaluates these variables against their effects on deal achievement. The regression analysis is performed to assess outcomes by using the change in acquirer stock price as the dependent variable which measures price changes from pre-announcement to post-closing periods.

Keywords: due diligence, mergers and acquisitions, role of due diligence in deal success, stock price change after deals, market volatility, regression analysis, share price reaction

БІРІГУ ЖӘНЕ ЖҰТЫЛУ: БІРІГУ ЖӘНЕ ЖҰТЫЛУ НӘТИЖЕЛЕРІНДЕГІ ДЬЮ ДИЛИДЖЕНСТІҢ РӨЛІ

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Бұл мақаланың мақсаты - бірігу және жұтылу мәмілелеріндегі дью дилидженс процесінің маңызын түсіндіру. Нарықтағы жоғары құбылмалылық және корпоративтік стратегиялардың барған сайын күрделенуі жағдайында дью дилидженс (ДД) бірігу және жұтылу (М&А) мәмілелерінің тиімділігін қамтамасыз етудегі негізгі кезеңге айналады. Bain & Company жүргізген сауалнама нәтижелеріне сәйкес, сәтсіз мәмілелердің көпшілігі бірқатар себептермен түсіндіріледі, олардың көбі ДД-ге қатысты факторлар болып табылады: синергияның асыра бағалануы, дью дилидженстің негізгі мәселелерді анықтай алмауы, мақсатты компанияның сату үшін «әсемделуі», стратегиялық сәйкестіктің жеткіліксіздігі, күмәнді белгілердің еленбеуі, сондай-ақ тендерлік бәсекенің қызуына еріп кету. Осы тұжырымдарға сүйене отырып, ДД рөлін іргелі деп санауға болады: дәл осы кезеңде интеграция, синергияны бағалау және тәуекелдерді басқару бойынша кейінгі стратегиялық шешімдердің сапасы қалыптасады.

Бұл жұмыста екінші реттік деректерді талдау тәсілі қолданылады: ДД сапасын өлшеу үшін бірнеше прокси-көрсеткіш ұсынылып, олардың мәміленің табыстылығына әсерін эмпирикалық түрде тексеріледі. Нәтижелерді бағалау үшін регрессиялық талдау жүргізіледі, мұнда тәуелді айнымалы - мәміле жарияланғанға дейінгі кезең мен мәміле жабылғаннан кейінгі кезең арасындағы сатып алушы компанияның акция бағасының өзгерісі.

Түйін сөздер: дью дилидженс, бірігу және жұтылу, мәміленің сәтті болуындағы дью дилидженстің рөлі, мәмілелерден кейін акция бағаларының өзгеруі, нарық құбылмалылығы, регрессиялық талдау, акция бағаларының реакциясы

СЛИЯНИЯ И ПОГЛОЩЕНИЯ: РОЛЬ ДЬЮ ДИЛИДЖЕНСА В РЕЗУЛЬТАТАХ СЛИЯНИЙ И ПОГЛОЩЕНИЙ

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Цель этой статьи - объяснить важность дью дилидженса в сделках слияний и поглощений. В условиях высокой волатильности рынков и усложнения корпоративных стратегий дью дилидженс (ДД) становится ключевым этапом обеспечения эффективности сделок по слияниям и поглощениям (M&A). Согласно результатам опроса Bain & Company, большинство неудачных сделок объясняется рядом причин, многие из которых являются ДД-факторами, такими как: переоценка синергий, неспособность дью дилидженса выявить ключевые проблемы, «приукрашивание» целевой компании перед продажей, недостаточное стратегическое соответствие, игнорирование сомнений и предупреждающих сигналов, а также вовлечение в азарт конкурентных торгов. Исходя из этих выводов, роль дью дилидженса можно считать фундаментальной: именно на этом этапе формируется качество дальнейших стратегических решений по интеграции, оценке синергий и управлению рисками.

В данной статье используется подход анализа вторичных данных, предлагающий ряд прокси-показателей для измерения качества ДД и эмпирически оценивающий их влияние на успешность сделки. Для оценки результатов проводится регрессионный анализ, где зависимой переменной выступает изменение стоимости акций компании-покупателя между периодом до объявления сделки и периодом после её закрытия.

Ключевые слова: дью дилидженс, слияния и поглощения, роль дью дилидженса в успешности сделок, изменение цены акций после сделок, волатильность рынка, регрессионный анализ, реакция цены акций

Introduction. Mergers and acquisitions (hereinafter referred to as “M&A”) require due diligence (hereinafter referred to as “DD”) because M&A transactions generate unpredictable results which result in various acquisition deal outcomes. M&A serve as a strategic growth tool which appears frequently, and many research show that acquisition performance for acquiring companies remains uncertain after deal completion.

For example, a key study by King et al. (2003) [1] summarizes many empirical works, which prove that in the average M&A deals results are not consistently positive for acquirers, and the variation in outcomes remains large and partly unexplained. Researchers continue to seek “moderator factors” which will help them predict deal success or failure during the initial preparation phase. Due diligence is important here, because it is a systematic review of the target company that helps identify risks, assumptions, and structural issues that can strongly affect post-deal performance.

Market practice confirms that due diligence is one of the main “bottlenecks” in successful deal closing. The KPMG 2025 M&A Deal Market Study (survey of 300 deal professionals) [2] shows that completing due diligence is among the top three obstacles to closing deals, in line with valuation and integration-related issues. The study reports that 41% of respondents mention completing due diligence as a critical difficulty during the deal process. This supports the idea that due diligence is not a formal checklist, but a key stage that can slow down, complicate, or block a deal. Also, according to this study, the rising number of deal risks demands advanced valuation models which need more information and stronger regulatory standards, thus due diligence serves as a vital assessment tool that affects deal length, market confidence, and transaction success rates.

Consulting practice also indicates that most M&A failures result from integration problems and incorrect synergy assessments, which should

be detected during due diligence evaluation. For example, the Bain report “The Merger Before the Merger” [3] lists key reasons why deals break down, according to their conducted survey, which include (Fig.1):

- Due diligence failed to highlight key issues
- Target was dressed up for sale
- Insufficient strategic fit
- Doubts were pushed aside
- Caught up in the bidding process

These factors are strongly linked to due diligence quality. They create “hidden risk” effects where the buyer overestimates value, underestimates integration challenges, and closes the deal with incomplete information.

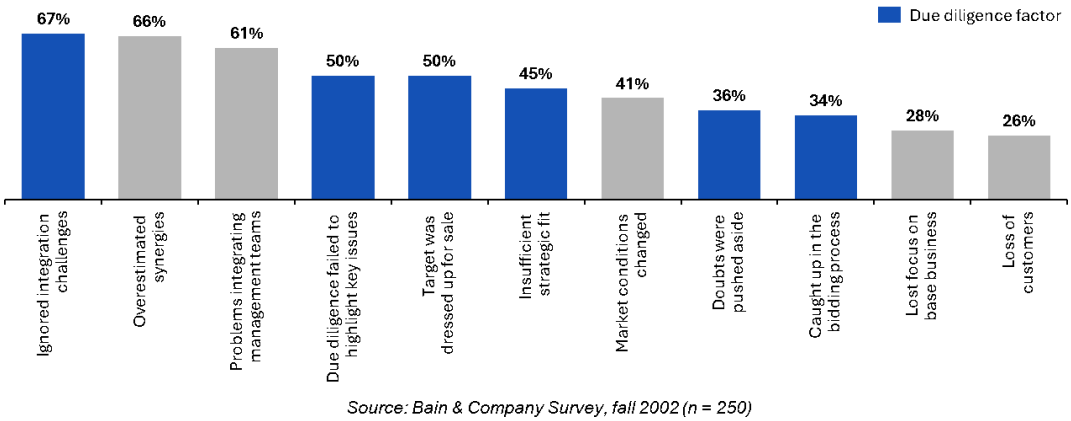


Fig.1 - Results of the Bain & Company Survey (n = 250)

In addition, the McKinsey report ”Where mergers go wrong” [4] also identifies overestimation of synergies as a stable problem which results in the ”winner’ s curse” because the auction winner ends up paying excessive amounts as a result of unrealistic expectations and insufficient proof of their assumptions. The process fails to demonstrate actual project risks and integration challenges and required resources when due diligence is not fully completed.

Hence, the research findings will have the following practical significance:

- due diligence factors linked to deal success can transform due diligence from “checklist” to measurable KPIs and predictive risk markers. If due diligence quality indicators statistically explain buyer’s stock price reaction to the conducted deals, then they can be translated into management actions as: 1) Due diligence scope and depth requirements;
- criteria for advisor selection;
- risk adjusted valuation and SPA protection.

The theoretical significance of the research will combine three literature streams that usually studied separately:

- event studies (market reaction to corporate events);
- accounting signals (post-deal reporting outcomes, such as impairment);
- due diligence literature (due diligence as a tool to reduce information asymmetry).

Finally, successful M&A is important not only on the corporate level, but beyond it. M&A reallocates capital, restructures industries, and transforms economies. Research suggests deals shape market structure, enable exit of weak players, speed up technology renewal, and help industries adapt to shocks (Andrade, Mitchell & Stafford, 2001 [5]; Andrade, 2004 [6]; Breinlich, 2008 [7]). Cross-border M&A is also part of FDI flows and supports transfer of technology and management practices (UNCTAD WIR series [8]). Failures destroy value and may create political risks and lower trust in cross-border investments.

In addition, the effectiveness of a due diligence

can vary depending on the mechanism for the purchase price under the Sales and Purchase Agreement (SPA). In international M&A practice, the two most common mechanisms are the “locked box” and “completion accounts”. Due diligence under the two mechanisms is carried out differently.

Under the locked box mechanism, the purchase price is determined based on the company’s historical financial statements as of a particular date in the past (the “locked box date”). This means that the due diligence exercise will have two phases: 1) a detailed review of the historical financial statements and the key financial metrics underlying the purchase price calculation, and 2) a more general review of the period since the locked box date to ensure that there have been no material leakage transactions which could allow the sellers to extract value from the company at the buyer’s expense.

On the other hand, under the completion accounts mechanism, the purchase price is calculated on the basis of the financial performance of target company as of the date of completion of transaction. Therefore, the price adjustment is done post-closing and the need of detailed review of the period between signing and closing of the transaction is reduced. The target company’s historical financial statements and financial metrics, such as net debt and net working capital, are reviewed and are further included in the purchase price calculation for the adjustment for completion accounts.

Thus, the due diligence under locked box mechanism is generally more detailed, since the purchase price is fixed, and a historical account has to be verified as to its accuracy and adequacy for the period from the effective date to the closing price. In a completion accounts mechanism, the focus is on the historical aspects and the contingent items which will impact future price adjustments, such as net debt and net working capital.

Materials and methods. This research examines whether higher due diligence quality leads to improved post-deal performance for the acquiring company. The central hypothesis proposes that a higher level of due diligence quality has a positive impact on the acquirer’s subsequent performance.

Research design and stages. The research proceeds through several steps. The first step was collecting secondary deal and market data, after that I built DD quality proxies and other control variables. After all data was collected, I estimated a linear regression model and checked multicollinearity using VIF. Lastly, I interpreted coefficients and statistical significance.

Data and materials. For the purposes of this research, I used secondary data collected from CapitalIQ and Refinitiv. The sample includes 39 deals, and sample size adequacy is justified using MacKinlay (1997) [9] power analysis. In MacKinlay’s example, event study test power with sample size around 30 is about 0.54, which has the power to identify a real effect. Since this study uses 39 observations (larger than 30), expected statistical power should not be lower than in that illustration. The research design with this sample size allows regression analysis through event study methods which follow established requirements.

Variables. The dependent variable measures post-deal performance for the acquirer and taken as a stock price change between before deal announcement and one year after deal closing (long-run returns). This reflects realization of expectations, ability to achieve synergies, integration success, and avoidance of overpayment. This approach is supported by long-run return studies: 1) Loughran & Vijh (2012) [10]: long-run returns of acquirers differ from short-run returns and depend on deal form and integration dynamics; 2) Rau & Vermaelen (1998) [11]: post-deal performance differs by bidder type and deal characteristics.

The *independent variables* are DD quality proxies (Table 1). A key limitation is that direct DD scope and true DD quality are not observable, as there is no available information about its underlying scope. Therefore, I used proxy variables:

- *information complexity of the target* - target type (private / public), industry (whether target is in a different industry than the buyer), country (cross-border or not);

- *deal duration* - days between announcement and closing. This is not a direct DD metric, but assumed that more time can allow more complete DD (based on [12]);

- *deal advisor* - advisor quality is treated as a valid independent variable because top-tier M&A advisors can provide better analysis, better risk detection, and better structuring, affecting both short-run market reaction and long-run performance. This is supported by work linking advisor choice to bidder returns (Golubov, Petmezas & Travlos [13]; Rau, 2000 [14]). The mechanism is reduction of information asymmetrical and lower risk of overpayment or wrong synergy assumptions;

- *goodwill impairment* - goodwill impairment in the first 1-3 years after the deal is used as a proxy for DD quality because it reflects how correct pre-acquisition assessments were, whether expected synergies were realized, and whether acquirer overpaid for the target company. The research by Wangerin (2019) [12] and Potepa & Thomas (2022) [15] shows that poor debt disclosure practices result in higher impairment costs and lower business performance and wrong fair value evaluations. Therefore, impairment is treated as an objective ex-post signal of DD effectiveness.

Lastly, controls include payment method, acquirer size and performance, and relative deal size.

Table 1 - Variables for regression

Variable name	Unit	Definition	Source
Performance	ln	Natural logarithm of the acquirer's stock price change (pre-announcement vs 1 year after closing)	CapitalIQ, Refinitiv
Target type	dummy	Whether the target company is private or public	CapitalIQ, Refinitiv
Industry	dummy	Whether the target company from the same industry as acquirer	CapitalIQ, Refinitiv
Country	dummy	Is the deal cross-border	CapitalIQ, Refinitiv
Deal duration	days	Number of days between deal announcement and deal closing	CapitalIQ, Refinitiv
Advisor	dummy	Whether the deal advisor was top-tier (e.g. Morgan Stanley, Goldman Sachs etc.)	CapitalIQ, Refinitiv
Impairments	dummy	Wheter the acquirer had a goodwill impairment in the first 1-3 years after the deal closed	CapitalIQ, Refinitiv
Payment	dummy	The deal's payment method (cash / equity)	CapitalIQ, Refinitiv
Relative deal size	USDm	The deal's size relatively to acquirer's market capitalization	CapitalIQ, Refinitiv
Acquirer equity value	USDm	The equity value of acquirer	CapitalIQ, Refinitiv
Acquirer ROA	%	ROA of acquirer	CapitalIQ, Refinitiv
Acquirer leverage	%	Acquirer's debt-to-equity ratio	CapitalIQ, Refinitiv

Regression model. For the purposes of this research I made multifactor linear regression model:

$$\text{Performance}_i = \beta_0 + \beta_1 \cdot \text{DDQuality}_i + \beta_2 \cdot \text{Controls}_i + \epsilon_i \quad (1)$$

Where: 1) Performance$_i$ = stock price change (pre-announcement vs 1 year after closing); 2) DDQuality$_i$ = DD proxies; 3) Controls$_i$ = control variables; 4) ϵ_i = error term.

After regression model was runed, I also conducted multicollinearity test, where VIF = 1.432, which suggests no multicollinearity concerns.

Results and Discussion. In this study, I evaluate statistical significance at the 90% confidence level ($\alpha = 0.10$). This choice is based on the event-study econometrics literature, which explains that return-based tests can have limited statistical power in small samples and that inference depends on sample size and return volatility. Following this guidance, I report results that are significant at the 10% level as economically meaningful signals that should be tested further in larger samples. (Kothari & Warner, 2004) [16].

Model fit. The model explains about 30% of the variation in the dependent variable (R^2 = 0.302), while the adjusted R^2 is 0.140 (Table 2). In M&A return regressions, such values are acceptable because stock return outcomes are noisy and influenced by many unobservable factors. Prior evidence suggests that cross-sectional models predicting acquirer stock-return reactions often have low explanatory power, so these fit measures are reasonable for this market setting. (Quariguasi Frota Neto et al., 2025 [17]).

Table 2 - Multifactor regression model results

Regression Statistics	
Multiple R	0.549265181
R Square	0.301692239
Adjusted R Square	0.139509534
Standard Error	0.415057657
Observations	39

Table 3 - Multifactor regression model results

	Coefficients	**Standard Error**	**P-value**
Target type (dummy)	0.076671579	0.165979733	0.647254323
Industry (dummy)	0.031494975	0.14875856	0.833669167
Country (dummy)	-0.097429955	0.186519835	0.605019448
Deal duration	-3.94365E-05	0.001044216	0.970108425
Advisor (dummy)	0.344301484	0.183779515	0.070164574
Impairments (dummy)	-0.301884692	0.154618128	0.059679329
Payment (dummy)	0.101490258	0.153903257	0.5143302

Key DD-related findings (Table 3). Advisor (dummy) has a positive coefficient (+0.344) and is marginally significant ($p \approx 0.07$). The coefficient on Advisor is +0.344 with $p = 0.070$. Since $p < 0.10$, this variable is significant at the 90% confidence level. The positive sign indicates that working with an experienced (top-tier) advisor who represents superior deal due diligence and structure leads to better one-year post-deal stock performance for the acquiring company.

Impairments (dummy) has a negative coefficient (-0.302) and is also marginally significant ($p \approx 0.06$) at the 90% confidence level. The negative sign indicates that deals followed by goodwill impairment within 1-3 years tend to have worse one-year post-deal stock price performance. The evidence supports impairment as an ex-post signal which reveals unmet expectations and possible overpayment and unidentifiable risks that became apparent after the transaction completion.

Other variables. The regression results show that target type and industry similarity and country and deal duration and payment method do not affect the outcome because their p-values are high. So in this sample and this specification they do not show strong independent explanatory power.

Conclusion. The goal of this study is to test whether due diligence quality affects M&A outcomes for the acquirer. The study uses a regression model within an event-study logic, where performance is measured as the acquirer's stock price change from before the announcement to one year after deal closing. DD quality is proxied by deal complexity measures, deal duration, advisor dummy, and post-deal goodwill impairment. The results demonstrate the following findings. The analysis shows that the Advisor dummy variable demonstrates a positive relationship with post-deal performance results at a marginally significant level ($p \approx 0.07$), the Goodwill impairment dummy variable produces negative results which affect post-deal performance at a marginally significant level ($p \approx 0.06$). Other variables are not significant. The present sample needs no further control procedures for the current assessment, as VIF indicates no multicollinearity (VIF ≈ 1.43).

The research findings indicate that DD-related conditions create significance for what happens after a deal is completed. Specifically: 1) Better advisor-related conditions (proxy for stronger analysis and structuring) are associated with higher post-deal stock price performance; 2) Goodwill impairment in the first 1-3 years after a deal is associated with worse post-deal performance and may reflect weak pre-deal screening, weak DD, or unrealistic synergy/valuation assumptions.

So, as a result, the research results confirm that due diligence functions as an invisible factor which links expected deal outcomes to actual post-acquisition performance.

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