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The effect of a financial advisor on the performance of the acquiring firm after a M&A deal

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Master's Thesis Economics

Corporate Finance & Control track

July 6, 2020

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Abstract

The objective of this paper was to determine a relationship between financial advisor characteristics and the cumulative abnormal returns (CARs) after a M&A deal. However, this relationship could not be substantiated with the outcomes of this paper. Mostly insignificant results are found regarding the effect of the financial advisor characteristics on the cumulative abnormal returns for acquiring firms. When controlled for the deal characteristics like the method of payment of the deal or the deal structure, these insignificant results continue to exist. For the acquirer and target characteristics, only the strength of the acquiring managers' position negatively affects the CARs. When we focus on two of the specific advisor characteristics, reputation, and amount of payment, we see that the acquirer's size and Tobin's Q positively influence the probability that a top advisor is being chosen. In addition, acquirer's size and Tobin's Q also show a positive relation with the amount of advisory fees paid. Overall, this paper does not find significant results that the financial advisors influence the outcomes of the cumulative abnormal returns of the acquiring firm after a M&A deal.

Acknowledgements

1. Introduction

The global Mergers and Acquisitions (M&A) market has a significant effect on the global economy. The total value of the M&A market was approximately $4,094 Billion USD in 2019 (JPMorgan, 2020). M&A advisors play a big role in the process and completion of a deal. The top five US investment banks (Bank of America, Citi, Goldman Sachs, JPMorgan Chase, and Morgan Stanley) generated $10.28 Billion USD in advisory revenues in 2019 (Financial Times, 2020). According to these advisory revenues, one would expect that investment banks or other financial advisors do play a significant role in the M&A deal and its outcomes. Otherwise, firms in a M&A deal would not pay that significant amount of money.

But where is the payment to the financial advisors based on? By analyzing the cumulative abnormal returns[1] (CARs) of the acquiring firm after the M&A deal, I hope to find the effects of an investment bank or advisor on a M&A deal in order to find a suitable payment for the advisory role in M&A deals. Mergers and acquisitions are important decisions for firms. Often, these firms turn to advisors or investment banks for support and advice when a merger or acquisition has to be performed. The acquiring firms pay a certain fee for the advisors' support during the M&A process. But does the support of the financial advisors actually help acquiring firms in generating more returns?

In this paper, the present literature on this topic will be explained in Section 2. Thereafter, the method and sample are discussed in Section 3. Section 4 contains the results of the research, which will be discussed in the conclusion (Section 5). Finally, Section 6 will discuss the paper and its limitations.

2. Literature Review

In this literature review, the theoretical framework will be discussed in which this research operates. The present literature discussed in this review, can be divided into three categories. First, literature on the effect of a financial advisor on the performance of the acquiring firm after a M&A deal will be discussed. Second, research that looked for a relationship between characteristics of an acquiring firm and the performance of the acquiring firm after a M&A deal will be covered. Finally, target characteristics and their influence on the performance of the acquiring firm after a M&A deal will be discussed.

2.1. Advisor Characteristics

Recent literature on the effect of financial advisors on the performance of the acquiring firm after the M&A process is present. There is little and contradicting evidence on the role of advisors regarding the process and the outcome of the mergers or acquisitions. The main literature on which this research is based, contains papers from Hunter & Jagtiani (2003) and Golubov (2012) on the effect of the reputation of the advisor on the performance of the acquiring firm. Next to these papers, Servaes &

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[1] Definitions of discussed variables in this paper are available in Table X.

Zenner (1996) discuss the quality of the advisor as a determinant of the effect of the advisor on the performance. Bao & Edmans (2011) make the distinction between using or not using an advisor at all during a M&A process.

The paper of Hunter & Jagtiani (2003) contains an analysis of advisor choice, fees and effort in mergers and acquisitions. The conclusions of their paper, relating to the advisor choice, are that top-tier advisors are more likely to complete deals and to complete them in less time than lower tier advisors. The more effort put in the deal by an advisor, the higher the post-merger gains were for the acquiring company. The synergetic gains of acquirers declined when top advisors were used. The amount of advisory fees paid do not influence the likelihood of completing the deal, but they are associated with higher cumulative abnormal returns (CARs) of the acquiring firm. The conclusion of Hunter & Jagtiani (2003) that more effort produces higher post-merger gains for the acquiring gains led to hypothesis 1A: '*The effort of an advisor during a M&A deal positively affects the CARs of the acquiring firm after a M&A deal*.'

Golubov et al. (2012) also uses the CARs to measure the performance of an acquiring firm after a M&A deal. They found hiring top-tier advisors generates higher bidder returns than when a worse advisor is hired. These higher bidder returns are attributed to the higher ability of top-tier advisors to identify synergies. This difference in effect, however, is only present in public M&A deals, because of the reputational exposure and the higher required skill set for public deals. The results of the previous papers of Hunter & Jagtiani (2003) and Golubov et al. (2012) found a positive effect of using an advisor. This result is not in line with the papers of Servaes & Zenner (1996). Servaes & Zenner (1996) found that the quality and the use of an investment bank as advisor does not affect the abnormal returns. They focus on the effect of using an investment bank on the transaction costs and asymmetric information costs. After controlling for these costs, the investment bank does not affect abnormal returns. A different approach for measuring the effect of investment banks is used by Bao & Edmans (2011). They used a fixed effect analysis to get to the result that an investment bank fixed effect significantly affects the announcement returns of an M&A deal. The significant investment bank fixed effects remove the component that can be explained by acquirer characteristics on the deal's 3-day CARs.

The reputation of a financial advisor could also play a role during a M&A process. Kale et al. (2003) measures the relative reputation of the advisor by their market shares in the year of the takeover. If the reputation of the bidder's advisor is higher relative to that of the target, the absolute wealth gain increases. The wealth gain is then redistributed from the target to the acquirer. A more recent paper by Ismail (2010) makes a difference between tier-one (prestigious investment banks) and tier-two financial advisors. The results of this paper suggested that tier-one advisors outperformed the tier-two

advisors. Ismail (2010) states that reputation based on the market share could be misleading. A ranking of investment banks should be based on their track record in generating gains to their clients.

In line with the outcomes of the previously discussed papers of Hunter & Jagtiani (2003), Golubov et al. (2012), Kale et al. (2003) and Ismail (2010), regarding the reputation of the advisor, it is expected that the following hypothesis 1B holds in this research: '*The reputation of an advisor positively affects the CAR of the acquiring firm after a M&A deal.*'

McLaughlin (1990 & 1992) investigates the influence of the investment bank contracts in tender offers. The amount of advisory fees paid to an investment banks depends on the value of a transaction. This could lead to a conflict of interest between the investment bank and the acquirer. The agency problem between the investment bank (agent) and the acquirer (principal) could influence the abnormal returns of an acquiring firm after a M&A deal. A paper by Allen et al. (2004) endorse this finding. They found a net certification effect for target firms but conflicts of interest for acquirers. The certification effect implies that the presence of a bank as advisor provides assurance to the capital markets. This effect, however, does not affect the abnormal returns of the acquiring firms.

Another paper that examines the amount of payment to financial advisors is written by Rau (2000). This paper states that the fee payments to the investment banks or financial advisors are positively related with their market share. The results also suggest that, in tender offers, the performance of the acquirer after the acquisition is negatively related to the payments to the advisors. This negative relationship implies that advisors focus on completing the deal, instead of realizing more synergies for example.

Ertugrul & Krishnan (2014) analyzed the dual role of investment banks that provide to acquiring firms and act as underwriters on the securities issued to finance the acquisition. When an advisor on the acquiring side plays both roles in a M&A deal, the acquirer announcement returns become lower. The target announcement returns, however, become higher and the deal completion speed rises.

The higher the amount of payment to the advisor, the higher the chance of an agency problem between the acquirer as a principal and the financial advisor as an agent. The financial advisors' objective is to receive a high payment for their services. Therefore, the contracts discussed by McLaughlin (1990 & 1992), Allen et al. (2004), and Rau (2000) and the kind of relationship between the advisor and the acquiring firm (Rau, 2000; Ertugrul & Krishnan, 2014) affect the CARs of the acquiring firm after a M&A deal. From this thought we derive the following hypothesis 1C regarding the amount of payment to an advisor: '*The amount of payment to an advisor negatively affects the CARs of the acquiring firm after a M&A deal.*'

2.2. Acquirer and Target Characteristics

The outcome of the M&A deals is also influenced by acquirer and target firm characteristics. In this section we examine papers that research the relation between acquirer or target firm characteristics and the outcome of a M&A deal.

Travlos (1987) wrote a paper considering the method of payment in explaining the returns of takeover bids at the announcement. The research produced significant differences between the abnormal returns in common stock exchanges and cash offers. For pure stock exchange bidding firms, stockholders suffer significant losses at the announcement of the takeover proposal. Shareholders of cash-financed bidding firms earn 'normal' rates of return at the announcement period. The results are independent of the type of takeover bid. Moeller (2007) adds to the results of Travlos (1987) that when there is controlled for idiosyncratic volatility, as a proxy for the information asymmetry and diversity of opinion, the abnormal returns between different sorts of bidding types do not differ.

Masulis et al. (2007) found a relationship between corporate governance mechanisms and the acquirer returns. Acquirers with more antitakeover provisions experience lower abnormal returns. Managers at acquiring firms protected by more antitakeover provisions are more likely to perform empire-building acquisitions that destroy shareholder value. Morck et al. (1990) found a relationship between the managers' objectives of an acquisition and the abnormal returns of the acquirer. When an acquiring firm diversifies, it buys a rapidly growing target, or when its managers performed poorly before the acquisition, the returns to shareholders of the acquiring firm are lower in the announcement period. The results suggest that managerial objectives may drive acquisitions that reduce bidding firms' values. Results from Masulis et al. (2007) and Morck et al. (1990) suggest that the stronger the position of the managers and the more antitakeover measures in a firm reduce the returns of the acquiring company. These results led to hypothesis 2A: *'The strength of a manager negatively affects the CARs of the acquiring firm after a M&A deal.'*

Servaes (1991) and Moeller et al. (2004) analyzed the financials of the acquiring firms in relation to the abnormal returns. Servaes (1991) found a relationship between the Tobin's Q and takeover gains. Tobin's Q is the ratio between the total market value and the total assets value of a firm. Target, bidder, and total returns are larger when a bidder has a high Tobin's Q. Papers by Lang et al. (1991 & 1996) states that a negative relation between leverage and growth holds for firms with a low Tobin's Q ratio. This relationship does not hold for firms with a high Tobin's Q ratio. From this finding we can conclude that leverage does not reduce growth for firms with a high Tobin's Q and thus good investment opportunities. Therefore, the following hypothesis 2B is derived: '*A higher Tobin's Q of the acquirer positively affects the CAR of the acquiring firm after a M&A deal.*'

Moeller et al. (2004) links the firm size with the gains from acquisitions. The abnormal announcement returns are 1.1% equally weighted over a sample of 12,023 acquisitions by public firms from 1980 to

2001. The announcement return is significantly higher for small acquirers. A paper by Zhao et al. (2019) focused on the acquirers' size in China. The results from this paper suggest that acquirer size plays a significant negative role in the announcement returns. The negative relationship is attributed to agency conflicts and value destruction. This result will also be tested in our sample through hypothesis 2C: '*A smaller acquiring firm size positively affects the CARs of the acquiring firm after a M&A deal.*'

3. Method

3.1. Data description

The empirical research contains data available from FactSet[2] concerning the value of the M&A deal paid by the acquirer, the total advisory fee, and the total amount of advisory fee paid by the acquiring firm. The transactions considered are the transactions with a transaction value of $1M and higher during the period 01-01-2000 up to 01-05-2020. The paper only looks at completed transactions with public targets and acquirers. The criteria that the advisor fees for both the Acquirer and Target are disclosed reduced the amount of transactions in the dataset a lot. Therefore, 545 transactions can be analyzed. For specific acquirer and target firm characteristics, data is also available on FactSet.[3]

3.1.1. Cumulative Abnormal Returns

The cumulative abnormal returns (CARs) are calculated using the stock returns of the acquiring companies in the period of three days after the announcement date of the transaction. The abnormal stock returns are calculated by comparing the stock returns of the company with the FTSE World Index. The difference between the stock return and the FTSE World Index is the abnormal return. The abnormal returns for the three days after the announcement added up are the cumulative abnormal returns for the three days event window (CAR3). For the dataset, the cumulative abnormal return for a five-day-window (CAR5) and the cumulative abnormal return for a ten-day-window (CAR10) are calculated.

3.1.2. Advisor Effort

The advisor has some characteristics that could influence the outcomes of the cumulative abnormal returns of acquiring firms, which are mentioned in the theoretical framework. This paper uses a proxy for the advisor effort. The time between the announcement and completion date gives a reasonable assumption on the effort put in the transaction by the advisor on the acquiring side of the transaction. This proxy is also used in the paper of Hunter & Jagtiani (2003). The average amount of days between the announcement and completion date is 176 days. Thus, on average it takes around half a year to complete the deal. But the range of days between the announcement and completion varies from 36

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[2] A license for the use of FactSet was provided by Radboud University.
[3] For definitions of discussed variables Table X in the Appendix is provided with a table that contains a definition for the variables included in this paper.

days up to 703 days. The higher the amount of days between announcement and completion, the lower the effort of the advisor is assumed to be.

3.1.3. Advisor Reputation

The advisor reputation influences the abnormal returns (Hunter & Jagtiani, 2003; Golubov et al., 2012; Kale et al., 2003 and Ismail 2010). In this paper the reputation of the advisor is based on the ranking of financial advisors based on the total transaction value. The financial advisors are put in one of the eight different tiers, which are also based on total transaction value (Table I).

Table I

Financial Advisor Ranking – Tiers

The ranking of the financial advisor based on the transaction value gives a good idea of which advisors are top advisors. In the following table the different tiers, based on the total transaction value of a financial advisor, are illustrated. For example: Goldman Sachs & Co. has a transaction value of $11,173,179.94 million USD. Therefore, it is placed on the first place in the ranking, and therefore Goldman Sachs & Co. is placed in the first tier.

Tier	Ranking	Transaction Value (in MM USD)[4]
1	1-10	$T.V.[5] > \$ 3,000,000$
2	11-25	$\$ 725,000 < T.V. < \$ 3,000,000$
3	26-50	$\$ 250,000 < T.V. < \$ 725,000$
4	51-100	$\$ 60,000 < T.V. < \$ 250,000$
5	101-250	$\$ 10,000 < T.V. < \$ 60,000$
6	251-1000	$\$ 800 < T.V. < \$ 10,000$
7	1001-2500	$\$ 50 < T.V. < \$ 800$
8	> 2500	$\$ 50 < T.V.$

Source: FactSet

To distinguish the top advisors from the non-top advisors, a dummy 'Top Advisor' is created. The value is zero for advisors who are ranked in tier 2 or lower. For advisors ranked in tier 1, the value is one. So, if a financial advisor is placed in tier one, it is labeled as a top advisor. The top advisors are

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[4] Approximations of the Transaction Values.
[5] Transaction Value

displayed in the following Table II. In some deals, more than one financial advisor works for the acquiring company. In this case, the highest ranking of one of the financial advisors is used.

Table II

Financial Advisor Ranking – Top 10 Advisors

The ranking of the financial advisor based on the transaction value shows which advisors are top advisors. In the following table the top ten financial advisors based on the transaction value are displayed.

Top 10	Financial advisor	Transaction Value (in MM USD)
1	Goldman Sachs & Co.	$ 11,173,179.94
2	Morgan Stanley	$ 8,997,155.70
3	JPMorgan Chase & Co.	$ 8,377,823.42
4	Bank of America Merrill Lynch	$ 7,897,214.86
5	Citigroup	$ 7,091,362.39
6	Credit Suisse	$ 5,500,932.47
7	Lazard	$ 4,249,033.55
8	UBS Group AG	$ 3,971,117.55
9	Deutsche Bank AG	$ 3,628,562.11
10	Barclays Plc	$ 3,376,247.79

Source: FactSet

3.2. Sample Statistics

When we look at the fees paid to the financial advisors, the range of total fees paid to a financial advisor varies from $20,000 to $137 million USD. The mean (median) of the total advisory fees paid by the acquirer is $10.2 million ($4 million). The mean is influenced by a few high observations of $97.5 million, $116 million, and $137 million.

Around 93% of the Acquiring companies in the dataset are located in the United States, while 99% of the Target companies are located in the United States. This is a limitation of the dataset, which does not allow us to analyze the differences in effect between countries. The sample does not include enough companies that are located outside of the United States.

Next to the location of the companies, the companies can be divided by sectors. The tables showing the different sectors of the Acquirers and Targets are included in Table XI and XII in the Appendix. The outstanding sector is 'Finance' because they have a significantly higher amount of observations. Most of the transactions are between companies in the same sector. In 446 of the 545 cases, an acquirer is engaged in a M&A deal with a target company that is active in the same sector. The dataset contains a dummy variable 'Same Sector', which takes a value of one if the acquirer and target are active in the same sector.

The mean (median) market value of the acquiring companies is $ 8,263.17 ($ 1,289.24) Million USD, which is measured at the closest date to the completion date available in FactSet. This date can be a month from the completion date or six months for example. But it is the value that is most closely related to the actual completion date market value of the company that could be extracted from FactSet. The Tobin's Q is measured by dividing the market value of the acquiring companies by the value of the total assets. The average Tobin's Q is 1.18, which means that the market value is higher than the value of the total assets. If the average Tobin's Q is higher than one, the company is overvalued, as the market value does not represent the replacement costs of the firm.

Another independent variable included in the analysis is the Post Merger CEO. We can use this as a proxy for the managers' position of the target company. This is a categorical variable, which is divided into four groups. When the CEO after the merger comes from the Acquirer, the managers' position of the target is assumed to be weak. For 399 (73.2%) of the observations, the Post Merger CEO comes from the Acquirer. Another 50 (9.2%) observations still have the Target CEO after the merger. The CEO's in the other observations it is unknown, whether the CEO originates from the Acquirer or the Target.

The transactions included in the dataset contain deals that vary in date of announcement from 2000 to 2019. The transactions are approximately evenly distributed over the years. So, there is no problem concerning the skewedness to more recent years for example, which could influence the outcomes of the research. Most of the transactions are performed with a friendly attitude of the acquiring company, namely around 98%. The other acquisitions are either hostile (1.5%) or neutral (0.5%). Since most acquirers used a friendly attitude towards the target company, an analysis whether a hostile attitude of acquirers influences the cumulative abnormal returns is not representative.

The Deal Structure, on the other hand, is likely to be more interesting and insightful to investigate. The dataset makes a distinction between four kinds of structures. First, the Direct structure, where the target company is directly merged into the acquiring company. Second, a Double Dummy structure, which entails that a newly company with two subsidiaries is created. One subsidiary merges into the buyer and one merges into the target. Third and fourth, the reversed and forward triangular mergers. A reversed triangular merger is a merger where an acquirer creates a subsidiary, and this subsidiary

company purchases the target company. The subsidiary company then ceases to exist because it is absorbed by the target company. In a forward triangular merger, or indirect merger, the target company also ends up as a fully owned subsidiary of the acquirer. The target company is acquired through a subsidiary of the acquirer and then the acquired company is merged into this subsidiary.

A transaction can also differ in the method of payment. Most transactions in the dataset are paid by using stock (52.5%), cash (2.4%) or a combination of stock and cash (41.5%). The remaining transactions are paid by notes (0.2%) or are unknown (2.4%).

3.3. OLS Regression

The OLS method requires that six assumptions hold in the OLS-regression. First, the regression model is linear in the coefficients and the error term. Second, for the model to be unbiased, the error term has a population mean of zero. The Shapiro-Wilk test provided evidence that this assumption holds. Third, all the independent variables are uncorrelated with the error term. Fourth, observations of the error term are uncorrelated with each other. The fifth assumption is that the error term has a constant variance (homoscedasticity). The Breusch-Pagan test revealed there was heteroskedasticity in the regression model. For some variables, it was needed to log transform them to fulfill this assumption of an OLS-regression. The homoscedasticity assumption of the OLS regression did not hold at first, which required the log transformation of the acquirers' market value, Tobin's Q, and the advisor effort. The last required assumption is that no independent variable is a perfect linear function of other explanatory variables. In Table III, we can see that no independent variable is a perfect linear function of other explanatory variables.

As displayed in Table III below, there are no significantly high correlations that will lead to strange results in this research. Some notable correlations are the correlation between acquirer Tobin's Q and acquirer's market value (0.3319), advisory fees paid and the acquirer's market value (0.6532), advisor ranking and the acquirer market value (-0.6399), advisor ranking and acquirer Tobin's Q (-0.3418), advisor ranking and advisor fees paid (-0.4117). The positive correlation between the advisor effort and acquirer's market value entails that the higher the acquirer's market value, the higher the amount of days to completion is. Therefore, the advisor effort is lower. The positive relation is also present between the acquirer's market value and advisor effort. This means that the higher the acquirer's market value is, the higher the days to completion is and the lower the advisor effort is. The last outstanding correlation is the correlation between the advisory fees paid and the advisor effort. The higher the advisory fees paid are, the higher the days to completion are, and therefore the lower the advisor effort.

Table III

Correlation Matrix

The matrix displays the correlation of the variances of the variables.

	CAR3	Acquirer Market Value	Acquirer Tobin's Q	Advisor Effort	Advisory fees paid	Advisor Ranking	Target Post Merger CEO
CAR3	1.0000						
Acquirer Market Value	-0.0129	1.000					
Acquirer Tobin's Q	-0.0666	0.3319	1.000				
Advisor Effort	0.0319	0.1136	-0.1533	1.000			
Advisory fees paid	-0.0304	0.6532	0.1921	0.2773	1.000		
Advisor Ranking	0.0058	-0.6399	-0.3418	-0.0294	-0.4117	1.000	
Target Post Merger CEO	0.0979	-0.0711	0.0089	0.0830	0.0504	-0.0111	1.000

The OLS regression model fulfills the assumptions required. Therefore, this model generates unbiased coefficient estimates that are relatively close to the true population values. The Gauss-Markov theorem states that OLS produces the best possible estimates than other linear model estimation methods when the assumptions are true (Woolridge, 2013). So, the assumptions are now accounted for in our model and we are able to produce the best possible estimates.

4. Results and Analysis

4.1. What deal characteristics influence the CARs?

According to the paper written by Travlos (1987), different methods of payments influence the returns for shareholders of the acquiring companies. In the following regression, three regressions are displayed of which one includes stock payments, and one includes cash payments.

Table IV

Stock vs. Cash Payment

The table displays an OLS regression, which includes the dependent variables with the extra control variables for the method of payment of the transaction. The distinction between stock and cash payment is made, where the deals financed with both stock and cash are ignored, because of the different proportions of cash and stock used to finance a deal.

	(1) CAR3	(2) CAR3	(3) CAR3
Log (Acquirer Size)	0.00345	0.00256	0.00335
	(0.315)	(0.470)	(0.332)
Log (Acquirer Tobin's Q)	-0.00620	-0.00594	-0.00612
	(0.124)	(0.141)	(0.130)
Log (Advisor Effort)	0.00731	0.00845	0.00737
	(0.482)	(0.419)	(0.479)
Acquirer Total Fees paid	-0.000559	-0.000487	-0.000561
	(0.174)	(0.243)	(0.174)
Advisor Ranking	-0.000492	-0.000541	-0.000471
	(0.878)	(0.866)	(0.883)
Target Post Merger CEO	0.0348*	0.0351*	0.0357*
	(0.029)	(0.027)	(0.027)
Stock Payment		0.0264	
		(0.300)	
Cash Payment			-0.00311
			(0.731)
_Constant	-0.0802	-0.0810	-0.0783
	(0.168)	(0.164)	(0.181)
N	536	536	536
R-Squared	0.017	0.019	0.017
Adj. R-Squared	0.005	0.006	0.004

p-values in parentheses

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

In the regressions above, the signs for 'Log (Acquirer Size)', 'Log (Advisor Effort)', and 'Target Post Merger CEO' are positive. The signs for 'Log (Acquirer Tobin's Q)', 'Acquirer Total Fees Paid' and

'Advisor Ranking' are negative. The independent variables show low and insignificant coefficients, except for 'Target Post Merger CEO'.

The previous table (Table IV) shows that only the dependent variable 'Target Post Merger CEO' gives a significant effect on the CARs on the 95% confidence level. The effect of this variable explains around 3.5% of the change in the CARs. All other variables are not significant, so we cannot say that there is evidence of the effect of these variables on the CARs. If we look at the total effect of the model, an R-squared of 0.017 implies that only 1.7% of the variation in the CARs is explained by the independent variables included in this regression. When a deal is financed with stock, the R-squared rises to 0.019. Only a small portion of the variance in the CARs is explained by this model. For the control variables, the difference between the sign of 'Stock Payment' and 'Cash Payment' suggests that a transaction financed with stock is better in terms of higher returns for the shareholders of the acquiring company. But the coefficients are not significant, so we cannot draw conclusions from this difference in signs of the coefficients.

Table V

Deal Structures

The table displays an OLS regression, which includes the dependent variables with the extra control variables for the deal structure of the transaction. Four different structures are displayed: Direct, Double Dummy, Forward Triangular and Reverse Triangular.

	(1) CAR3	(2) CAR3	(3) CAR3	(4) CAR3	(5) CAR3
Log (Acquirer Size)	0.00345	0.00309	0.00313	0.00335	0.00329
	(0.315)	(0.362)	(0.355)	(0.323)	(0.334)
Log (Acquirer Tobin's Q)	-0.00620	-0.00414	-0.00618	-0.00571	-0.00604
	(0.124)	(0.346)	(0.120)	(0.150)	(0.145)
Log (Advisor Effort)	0.00731	0.00571	0.00511	0.00624	0.00676
	(0.482)	(0.581)	(0.621)	(0.544)	(0.513)
Acquirer Total Fees paid	-0.000559	-0.000485	-0.000577	-0.000539	-0.000539
	(0.174)	(0.236)	(0.157)	(0.186)	(0.193)
Advisor Ranking	-0.000492	-0.000164	0.000266	-0.000108	0.000252
	(0.878)	(0.957)	(0.930)	(0.972)	(0.934)
Target Post Merger CEO	0.0348*	0.0355*	0.0329*	0.0357*	0.0347*
	(0.029)	(0.022)	(0.034)	(0.027)	(0.026)
Direct		0.0107			
		(0.392)			
Double Dummy			0.0421		

					(0.098)	
Forward Triangular					-0.0155	
					(0.229)	
Reverse Triangular						0.00226
						(0.814)
_Constant	-0.0763	-0.0719	-0.0691	-0.0725	-0.0787	
	(0.185)	(0.214)	(0.230)	(0.208)	(0.178)	
N	536	536	536	536	536	
R-Squared	0.017	0.019	0.017	0.017	0.019	
Adj. R-Squared	0.005	0.006	0.004	0.004	0.006	

p-values in parentheses

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

In the table above (Table V), the OLS regression includes the control variables for the deal structure. A distinction is made between four structures in the dataset: direct, double dummy, forward triangular and reverse triangular. The dependent variables in the regression are still insignificant, except for 'Target Post Merger CEO'. The control variables, the different deal structures, do not significantly affect the CARs of the acquiring company. The forward triangular deal structure is the only structure that negatively affects the CARs, while being insignificant. The model explains between 1.7% and 1.9% of the CARs variance. So, when we control for the deal structure the outcomes in terms of significance remain the same as in Table IV.

4.4. Do different event windows influence the outcomes?

Table VI

Different Event Windows

The matrix displays the CARs for wider event windows. This is a robustness test to see whether the effects remain the same when the event window is changed.

	(1)	(2)	(3)
	CAR3	CAR5	CAR10
Log (Acquirer Size)	0.00323	0.00295	0.00427
	(0.341)	(0.453)	(0.436)
Log (Acquirer Tobin's Q)	-0.00576	-0.00551	-0.00524
	(0.147)	(0.240)	(0.415)
Log (Advisor Effort)	0.00659	0.00775	0.00664
	(0.522)	(0.454)	(0.520)

Acquirer Total Fees paid	-0.000522	-0.000351	-0.000565
	(0.200)	(0.457)	(0.391)
Advisor Ranking	0.000195	0.000126	0.000264
	(0.948)	(0.971)	(0.589)
Target Post Merger CEO	0.0350*	0.0257	0.0189
	(0.024)	(0.152)	(0.450)
_Constant	-0.0763	-0.0610	-0.0591
	(0.185)	(0.361)	(0.525)
N	536	536	536
R-Squared	0.017	0.007	0.004
Adj. R-Squared	0.005	-0.004	0.007

p-values in parentheses

* p<0.05, ** p<0.01, *** p<0.001

The different event windows do not make a difference for the signs of the coefficients. There are only slight changes in the values of the coefficients. These changes do not have a significant impact on the regression. The significance of the 'Target Post Merger CEO' disappears when the event window is expanded. It was significant at the 95% confidence level, but the coefficient has become insignificant in the CAR5 and CAR10 regressions.

The R-squared drops when the event window is expanded. This would suggest that more factors, other than the factors taken into consideration in this model, influence the CARs as time proceeds.

4.2. When does an acquirer hire a top advisor?

The following table VII shows the probability that an acquirer chooses a top advisor. The variable 'Top Advisor' takes a value of one, when the financial advisor is placed in tier one, based on Table I. This ranking is based on M&A data from FactSet.

Table VII

Top Advisor

The matrix displays the variables that affect the probability of choosing a top advisor as financial advisor.

	(1) Top Advisor
Log (Acquirer Size)	0.1322***
	(0.000)
Log (Acquirer Tobin's Q)	0.0699***
	(0.000)

Log (Advisor Effort)	-0.021
	(0.579)
Same Sector	-0.0665
	(0.134)
Cross Border	0.0819
	(0.207)
_Constant	-0.2003
	(0.298)
N	536
R-Squared	0.4114
Adj. R-Squared	0.4059

p-values in parentheses

* p<0.05, ** p<0.01, *** p<0.001

When we look at the regression outcomes, the probability of hiring a top advisor rises when the acquirer's size or Tobin's Q is higher. These coefficients are significant on the 99% level. If an acquirer wants a quick process, in terms of the amount of days between the announcement and completion date ('Advisor Effort'), a top advisor could possibly reduce the time of the process. The coefficient, however, is insignificant. The same insignificancy is present for the two dummy variables 'Same Sector' and 'Cross Border'. 'Same Sector' has a negative coefficient, from which we can conclude that if a transaction takes place between companies in the same sector, the probability that a top advisor is hired becomes lower. If a transaction takes places between companies in different countries the probability that a top advisor is hired becomes higher. In total, 41.1% of the variance in hiring a top advisor is explained by the variables included in this model

4.3. What determines the advisory fees?

Table VIII

Advisory Fees

The matrix displays the variables that affect the amount of advisory fees paid by an acquiring firm during a merger or acquisition.

	(1) Log (Adv. Fees)	(2) Log (Adv. Fees)	(3) Log (Adv. Fees)
Log (Acquirer Size)	0.6539***	0.6391***	0.626***
	(0.000)	(0.000)	(0.000)
Log (Acquirer Tobin's Q)	0.1695***	0.1776***	0.077
	(0.000)	(0.000)	(0.068)

Log (Advisor Effort)	0.1901	0.1961*	0.1818
	(0.052)	(0.044)	(0.055)
Same Sector	-0.1791	-0.1783	-0.0899
	(0.117)	(0.111)	(0.418)
Cross Border	-0.1874	-0.0817	-1.1365
	(0.262)	(0.620)	(0.406)
Friendly		0.5441***	
		(0.000)	
Hostile		0.3087	
		(0.426)	
Direct			0.0581
			(0.684)
Double Dummy			0.7528**
			(0.004)
Forward Triangular			0.5988***
			(0.000)
Reverse Triangular			0.7071***
			(0.000)
_Constant	-4.1102***	-4.4808***	-4.4328***
	(0.000)	(0.000)	(0.000)
N	536	536	536
R-Squared	0.681	0.695	0.707
Adj. R-Squared	0.678	0.691	0.702

p-values in parentheses

* p<0.05, ** p<0.01, *** p<0.001

In Table VIII regressions have been performed to see what determinants influence the advisory fees. The second regression contains determinants concerning the approach of the acquiring firm towards the target. A friendly approach positively influences the advisory fees. The third regression contains information about the deal structure. A double dummy, forward triangular and reverse triangular structure positively affects the advisory fees. The positive effects of the acquirers' approach and the deal structure were absorbed in the constant in the first regression. This development of the model between the first regression on the one hand, and the second and third regression on the other hand can also be seen in the R-Squared development. The second and third regression explain more of the variation in the advisory fees, respectively 69.5% and 70.7%, than the first regressions' R-Squared (68.1%). For all regressions, the Acquirers' size positively affects the amount of advisory fees paid to

the financial advisor. This significant positive effect is also the case for the Acquirers' Tobin's Q in the first and second regression.

5. Conclusion

5.1. Hypotheses

The main question whether the financial advisor has a positive effect is tested by dividing the question into six hypotheses. By looking at the effort, the reputation, and the amount of payment of a financial advisor, the most important advisor characteristics are covered in the analysis. The acquirer and target characteristics that are mentioned in the relevant literature are covered by hypotheses 2A, 2B and 2C.

'The effort of an advisor during a M&A deal positively affects the CAR of the acquiring firm after a M&A deal.'

The conclusion of Hunter & Jagtiani (2003) that more effort produces higher post-merger gains for the acquiring, cannot be derived from the results in this paper. We see an opposite, thus negative effect. The amount of days between announcement and completion is used as a proxy for the advisor effort, where a higher amount of days between announcement and completion means a lower advisor effort. Although the results are not significant, even if controlled for stock or cash payments in Table IV or deal structures in Table V, we see a negative effect for the coefficient. So, a higher amount of days between announcement and completion (a lower advisor effort) suggests higher post-merger acquisition gains in terms of the cumulative abnormal returns in three days. This result holds for different event windows. But statistically, we cannot say that the effort of an advisor during a M&A deal significantly positively affects the CAR of the acquiring firm after a M&A deal.

'The reputation of an advisor positively affects the CAR of the acquiring firm after a M&A deal.'

Hunter & Jagtiani (2003), Golubov et al. (2012), Kale et al. (2003) and Ismail (2010) discussed the relation between the reputation of the advisor and the abnormal returns of the acquiring firm. They all found a positive relationship between these two variables. We also found this positive relationship in our research. The higher the advisor ranking in terms of absolute value of the tier (one to eight), the lower the CARs are. The results, however, are not significant in both Table IV and V. So, we are not able to reject hypothesis 1B.

'The amount of payment to an advisor negatively affects the CAR of the acquiring firm after a M&A deal.'

The higher the amount of payment to the advisor, the higher the chance of an agency problem between the acquirer as a principal and the financial advisor as an agent. The financial advisors' objective is to receive a high payment for their services. Therefore, the contracts discussed by McLaughlin (1990 & 1992), Allen et al. (2004), and Rau (2000) and the kind of relationship between the advisor and the

acquiring firm (Rau, 2000; Ertugrul & Krishnan, 2014) affect the CARs of the acquiring firm after a M&A deal. The amount of payment negatively influences the CAR in Table IV and V, but the coefficients are insignificant. So, we cannot say that there is evidence provided in this paper of the negative effect of the amount of payment on the CARs of the acquiring firm after a M&A deal.

'The strength of the manager negatively affects the CAR of the acquiring firm after a M&A deal.'

Results from Masulis et al. (2007) and Morck et al. (1990) suggest that the stronger the position of the managers and the more antitakeover measures in a firm reduce the returns of the acquiring company. We considered a dummy variable 'Target Post Merger CEO' as a proxy for the strength of the manager. When Target Post Merger CEO takes a value of one, the Target CEO kept his position after the merger. So, we can say that the acquiring manager did not perform an act of empire-building and did the acquisition for its own personal objectives. The coefficients for the Target Post Merger CEO are significantly positive, which delivers evidence to not reject the hypothesis. The effect, however, becomes insignificant for CAR5 and CAR10. For CAR3, the strength of the manager, as expected, has a significant negative effect on the CARs of the acquiring firm after a M&A deal.

'A higher Tobin's Q of the acquirer positively affects the CAR of the acquiring firm after a M&A deal.'

Servaes (1991) found a positive relationship between the Tobin's Q and takeover gains. We have not found evidence in line with this hypothesis. In Tables IV and V, the signs of the coefficients are negative and insignificant. So, we cannot say that the hypothesis can be rejected.

'A smaller acquiring firm size positively affect the CAR of the acquiring firm after a M&A deal.'

The paper by Moeller et al. (2004) linked the firm size with the gains from acquisitions. They found evidence that a smaller acquiring firm size positively affected the CAR of the acquiring firm after a M&A deal. There is no evidence to prove this hypothesis in this research. The signs for the coefficients in Table IV and V are positive but insignificant. So, we cannot reject hypothesis 2C.

Table IX

Rejection of Hypotheses

The matrix displays whether the results imply that a hypothesis should be rejected or not. If the results imply insignificant results, the hypothesis is not able to be rejected or not: N/A.

Hypothesis		Reject
1A	*'The effort of an advisor during a M&A deal positively affects the CAR of the acquiring firm after a M&A deal.'*	N/A
1B	*'The reputation of an advisor positively affects the CAR of the acquiring firm after a M&A deal.'*	N/A

1C	*'The amount of payment to an advisor negatively affects the CAR of the acquiring firm after a M&A deal.'*	N/A
2A	*'The strength of the manager negatively affects the CAR of the acquiring firm after a M&A deal.'*	No
2B	*'A higher Tobin's Q of the acquirer positively affects the CAR of the acquiring firm after a M&A deal.'*	N/A
2C	*'A smaller acquiring firm size positively affect the CAR of the acquiring firm after a M&A deal.'*	N/A

The table above (Table IX) shows a summary of whether a hypothesis is rejected or not. There is only statistical evidence for not rejecting hypothesis 2A. The other hypotheses could not be proven by this research.

5.2. Advisor characteristics

The acquirer's size and Tobin's Q positively influence the probability that a top advisor is being chosen (Table VII). If the acquirer's size is bigger, they are more likely to hire a financial advisor placed in tier one of the ranking for financial advisors. This could be due to the more financial power to hire financial advisors that are ranked as top advisors. This can also be seen in Table VIII, where the firm's size significantly and positively affects the amount of advisory fees paid. This is also the case for the Tobin's Q. A higher Tobin's Q lead to a higher amount of advisory fees paid.

Regarding the effect of the financial advisors characteristics (effort, reputation or amount of payment), we cannot conclude that financial advisors attribute to higher cumulative abnormal returns nor that financial advisors negatively affect cumulative abnormal returns for an acquiring firm after a M&A deal. This paper only found insignificant results regarding the effect of the financial advisor characteristics on the cumulative abnormal returns. This also was the case when there is controlled for the deal characteristics method of payment of the deal or the deal structure. For the acquirer and target characteristics, only for the strength of the acquiring managers' position significant effects are displayed. The strength of the acquiring managers' position has a negative influence on the cumulative abnormal returns of the acquiring company after a M&A deal. The acquirer's firm size and Tobin's Q do not significantly affect the cumulative abnormal returns.

For different event windows (5 days and 10 days) the results for financial advisor, acquirer and target characteristics do not change. When we look at two of the specific advisor characteristics (reputation and amount of payment), we see that the acquirer's size and Tobin's Q positively influence the probability that a top advisor is being chosen. The positive relation is also present for the amount of advisory fees paid. The higher the acquirer's size and Tobin's Q, the higher the amount paid to the financial advisors. Overall, this paper shows that it is difficult to disentangle the effect of a M&A deal

on the cumulative abnormal returns. The objective of this paper was to show a relationship between financial advisor characteristics and the cumulative abnormal returns after a M&A deal, but this relationship could not be substantiated with the outcomes of this paper. Further research is needed to disentangle the effect of the financial advisor on the outcomes for an acquiring firm after a M&A deal. In the search for results, a larger dataset containing for example M&A deals across different countries could help to gather more information about the role of the financial advisor on the performance of the acquiring firm after a M&A deal.

6. Discussion & Limitations

5.1. Discussion

The coefficients for the Target Post Merger CEO are significantly positive in Table IV and V. The effect, however, becomes insignificant for CAR5 and CAR10. For CAR3, the strength of the manager, as expected, has a significant negative effect on the CARs of the acquiring firm after a M&A deal. A reason for the positive effect of keeping the Target CEO after the merger could be that CEOs with multiple directorships negatively affect the performance of the acquiring firm (Redor, 2016; Peni, 2012). If the acquirers' CEO has to focus on multiple directorships, it would negatively affect the performance of the acquiring firm.

The coefficients for the log of the acquirers' size and Tobin's Q are significantly positive for the probability of hiring a top advisor (Table VII). Being a top advisor is positively correlated with the amount of advisory fees paid (Table III). Therefore, it makes sense that these significant positive relationships also exist for the amount of advisory fees paid in Table VIII. The positive relation between the acquirers' size and the amount of advisory fees paid seems reasonable. Larger firms are better able to pay more advisory fees, as the amount is relatively small compared to financial resources available. A possible reason for the positive relationship between the acquirers' Tobin's Q and the amount of advisory fees paid could be that acquiring companies know that they are overvalued when the firms' Tobin's Q is higher than one. So, although there is no literature present on this topic to prove this reasoning, a higher Tobin's Q could possibly give a reason for an acquiring firm to pay more advisory fees in order to protect their (too high) value.

The positive relationship between the Tobin's Q and the amount of advisory fees paid turns insignificant when there is controlled for the acquirer's approach. The amount of advisory fees paid is significantly positive influenced by a friendly approach of the acquirer. We would expect the effect to be the other way around. Hostile deals are often more complex than friendly deals and therefore the amount of advisory fees paid should be higher (Hunter & Jagtiani, 2003). The reason for this reversed effect could be that the dataset consists of almost only friendly deals. Therefore, it is a possibility that the positive effect in this research does not parallel with the expected effect.

When the deal structure is introduced in the OLS regression in Table VIII, positive significant coefficients are present when more difficult deal structures are used (Double dummy, Forward triangular and Reverse triangular). Due to the complexity of the deal, it makes sense that the advisory fees are higher, as the advice is more needed with mergers and acquisitions with these kinds of structures.

If we look at the insignificant results of the regression, we see that hypotheses 1A, 1B, 1C, 2A and 2C were not able to be rejected or not rejected by this research. The effort of the advisor was not proven to significantly affect the acquirers returns. We used the amount of days between announcement and completion could as a proxy for the advisors' effort. However, the time to completion could be influenced by factors that are not influenced by the advisors' effort. So, in further research we have to find another proxy that better reflects the advisors' effort. The reputation, amount of payment, Tobin's Q and acquirers' size do not significantly affect the outcomes of the deal for the acquiring firm. It is possible that the deals are affected by other factors than the reputation, amount of payment, Tobin's Q and acquirers' size. These other factors could be deal-specific and firm-specific, and therefore difficult to implement in a research.

The research designed in this paper was not able to deliver answers to five of the six formulated hypotheses. Only a negative significant effect of the acquiring CEO power on the acquiring firm performance has been found. Overall, this research does not provide enough evidence to say that financial advisors do affect the outcome of the acquiring firm performance after a M&A deal.

5.2. Limitations

The lack of statistically significant coefficients for the different parameters, could be the consequence of some limitations. A limitation regarding the dataset is that almost all companies are US based. It could be interesting to include more companies, that are based in other countries, to see whether the results and hypotheses hold or change. This would also increase the sample size, which could strengthen the research. If the sample size increases, it could be easier to find significant relationships. Those significant relationships were difficult or not able to extract from the data available on FactSet.

Another limitation is that the outcomes of the deals, in terms of the cumulative abnormal returns, depend on a lot of variables. It is practically impossible to identify all variables and include them in the regressions. On the other hand, one could state that there is a lack of available knowledge on the variables that affect the cumulative abnormal returns of an acquirer after a deal. Therefore, a possible solution could be to design the research in line with a paper written by Bao & Edmans (2011), which uses a fixed-effects analysis. This could be more useful to determine the effects of the financial advisor characteristics as a whole on the cumulative abnormal returns.

Further research could focus on finding variables that significantly affect the cumulative abnormal returns. This research has only found some significant results, but most of the coefficient of the

variables are insignificant. In this view, the available literature and data must be expanded to identify more variables that could impact the cumulative abnormal returns. When there is access to data that expands the sample size, possible significant relationship could be found.

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Appendix

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Table X

Variable Definitions

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Variable	Definition
CAR3	The cumulative abnormal returns measured in three days after the announcement date
CAR5	The cumulative abnormal returns measured in five days after the announcement date
CAR10	The cumulative abnormal returns measured in ten days after the announcement date
Acquirer MV	The Acquirer's Market Value, retrieved from FactSet
Acquirer Tobin's Q	The Acquirer's Market Value divided by the value of the Total Assets of the acquirer.
Advisor Effort	A proxy for advisor effort: The days between the announcement date and the completion date.
Acquirer Total Fees Paid	The total amount of fees in millions paid to the financial advisor(s) of the acquiring firm.
Target Post Merger CEO	A dummy variable, which takes a value of one if the post-merger CEO originates from the target company.
Advisor Ranking	A categorical variable, that can take a value from 1 (highest tier) – 8 (lowest tier), based on a ranking displayed in Table 1. When an acquirer has more than one financial advisor, the advisor ranking takes the value of the highest ranked financial advisor.
Top Advisor	A dummy variable, which takes a value of one if the financial advisor is ranked in tier one.
Target Country	The country in which the target is based.
Acquirer Country	The country in which the acquirer is based.
Cross Border	A dummy variable, which takes a value of one if the acquirer and the target in a M&A deal are based in different countries.
Target Sector	The sector in which the target is active.
Acquirer Sector	The sector in which the acquirer is active.
Same Sector	A dummy variable, which takes a value of one if the acquirer and the target are active in the same sector.
Cash Payment	A dummy variable, which takes a value of one if the acquirer finances the M&A deal with cash.

Stock Payment	A dummy variable, which takes a value of one if the acquirer finances the M&A deal with stock.
Friendly	A dummy variable, which takes a value of one if the approach of the acquirer towards the target is friendly.
Hostile	A dummy variable, which takes a value of one if the approach of the acquirer towards the target is hostile.
Direct	A dummy variable, which takes a value of one if the deal structure is direct.
Double Dummy	A dummy variable, which takes a value of one if the deal structure is double dummy.
Forward Triangular	A dummy variable, which takes a value of one if the deal structure is forward triangular direct.
Reverse Triangular	A dummy variable, which takes a value of one if the deal structure is reverse triangular direct.

Table XI

Target Sectors

Target Sector	Frequency	%	Cumulative %
Commercial Services	16	2.94	2.94
Communications	11	2.02	4.95
Consumer Durables	7	1.28	6.24
Consumer Non-Durables	10	1.83	8.07
Consumer Services	25	4.59	12.66
Distribution Services	5	0.92	13.58
Electronic Technology	40	7.34	20.92
Energy Minerals	32	5.87	26.79
Finance	207	37.98	64.77
Government	1	0.18	64.95
Health Services	19	3.49	68.44
Health Technology	38	6.97	75.41
Industrial Services	24	4.40	79.82
Miscellaneous	1	0.18	80.00
Non-Energy Minerals	7	1.28	81.28
Process Industries	11	2.02	83.30
Producer Manufacturing	13	2.39	85.69

Retail Trade	9	1.65	87.34
Technology Services	43	7.89	95.23
Transportation	9	1.65	96.88
Utilities	17	3.12	100.00
Total	545	100.00	

Table XII

Acquirer Sectors

Acquirer Sector	Frequency	%	Cumulative %
Commercial Services	18	3.30	3.30
Communications	13	2.39	5.69
Consumer Durables	7	1.28	6.97
Consumer Non-Durables	9	1.65	8.62
Consumer Services	21	3.85	12.48
Distribution Services	5	0.92	13.39
Electronic Technology	39	7.16	20.55
Energy Minerals	30	5.50	26.06
Finance	217	39.82	65.87
Government	1	0.18	66.06
Health Services	15	2.75	68.81
Health Technology	38	6.97	75.78
Industrial Services	25	4.59	80.37
Non-Energy Minerals	7	1.28	81.65
Process Industries	10	2.83	83.49
Producer Manufacturing	14	2.57	86.06
Retail Trade	14	2.57	88.62
Technology Services	39	7.16	95.78
Transportation	6	1.10	96.88
Utilities	17	3.12	100.00
Total	545	100.00	