TARGET'S FINANCIAL PERFORMANCE IN CORPORATE ACQUISITIONS: BRICS EVIDENCE

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Corporate acquisition success can be influenced by many factors, e. g. financial performance of acquirer or target firm, market reaction, rumors, contract clauses etc., having either negative or positive effects. The aim of this study is to investigate the role of target's financial performance in acquisition process and its influence on acquisition success. Research scope of the study is narrowed to BRICS companies, where lack of experience and intensively growing economies led to a growth in M&A deals number. The study uses the accounting-based approach that implies calculation of combined ROA change to measure acquisition performance and answer the posed research question. Based on 70 acquisition deals data collected from Bureau van Zephyr, Refinitiv Eikon and SPARK, the research relies on building logistic and OLS regressions in order to observe long-term effects of various parameters influencing acquisition success. The results of this study suggest that acquisitions affect combined financial performance of the companies negatively, on average, but they are more successful if the target company was making losses prior the deal than if the target had sufficient financial health. In addition, we revealed that cross-border and cross-industry factors positively influence the performance of the deals. The paper contributes to the literature as it focuses on both the fact of the acquisition success or failure and its numerical expression, therefore it helps to investigate the impact of variables on the result. In addition, it highlights the reasons why the acquirers in BRICS quite often make deals with loss-making targets.

Keywords: corporate acquisitions, acquisition performance, target's financial performance, bidder's motivation, BRICS countries.

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INTRODUCTION

One of the important business cycles of each company is the change of its owner. In every such transaction, there are always two parties: buyers and sellers. These parties can be either individuals or companies that are also owned by someone. The motives for selling/buying an organization can be different, but they have certain common features: buyers see this action as a prospect (having economic or strategic benefit), and sellers consider the sale as a profitable deal for themselves. In the same way, mergers and acquisitions (M&A) are, in essence, the changes of ownership structure of the companies being important strategic decisions at the same time. Since the company's strategic goal is to increase its shareholders' wealth [McGee, Thomas, Wilson, 2005], the research in the field of M&A can significantly help in understanding the factors that influence the success or failure of M&A deal as an element of strategic management.

Over the past decades the number of M&A deals in the world significantly increased. Despite the relative numbers have not grown abnormally (relative to the growth of world GDP), the changes in absolute values exceed 1000 %, making the area of corporate acquisitions and mergers requiring the deep and thorough research. Thus, in 1985, only 2676 M&A deals were recorded, while the total number of deals in 2019 consisted of 49 327 completed deals [Institute for Mergers..., 2020]; the total value of M&A deals changed from 347 bln doll. to 3.37 trln doll. over the same period. According to Reuters, global merger and acquisition activity shattered all-time records in 2021 and reached 5.63 trln doll., surpassing the pre-financial-crisis record of 4.42 trln doll. in 2007 [Sen, Barbaglia, Wu, 2021].

Although M&A are actively studied in scientific literature, the main focus in this field is directed to the acquisitions' performance and efficiency, often defined by researchers as the gain of a bidding company [Papadakis, Thanos, 2010]. Some of the stud-ies consider the gains for target firm's shareholders determined as the bid premium in acquisition deal [Markides, Oyon, 1998; Sudarsanam, Mahate, 2006]. Another cluster of studies, such as [Bertrand, Betschinger, 2012; Boateng, Qian, Tianle, 2008; Black et al., 2013] dedicated the research to the cross-border and domestic acquisition comparison and analysis.

Some of the studies shift their focus towards financial performance of both acquirer and target firm, e. g., in [Harford, Klasa, Walcott, 2009] researchers investigate the capital structure (leverage) of target firms and compare it with one of acquirers. Another work analyzes the financial performance parameters and product market characteristics of acquired firms to determine if such parameters differ markedly from the characteristics of non-acquired companies [Harris et al., 1982].

However, scientific literature still lacks more studies which investigate the target firm parameters in acquisition deal performance. This study aims to help filling the research gap and shed the light on the role of target's financial performance in corporate acquisitions. The work applies methods, commonly used when studying M&A events, to analyze the performance of acquisition deals (such as ROA change approach and time window widely used in event-study) and contributes with the new approach to consider the financial performance of target firms by introducing profitability dummy variables in logistic regression.

The geographical constraints were narrowed to BRICS countries to ensure the availability of necessary data to conduct econometric analysis and support the relevance of the topic in current economic conditions. While the economic influence of emerging capital markets has been increasing through years, the center of research interest is slowly shifting from developed to developing countries, highlighting the importance of understanding and predicting new economic trends. Lately, companies from emerging capital markets are involved in

every fourth merger or acquisition [Luzina, Rogova, 2015], which indicates the necessity to analyze the characteristics and differences in M&A activities. Moreover, the investigation of the topic may have significant implications for policymakers in BRICS countries that can consider the results when designing the legislative framework for further capital market development. According to the findings of [Bertrand, Betschinger, 2012], emerging market firms suffer from the inability to leverage value due to low M&A experience and capabilities, most firms do not increase their intrinsic value as the result of an acquisition deal. Hence, studying the topic can be helpful for solving the problem of rational M&A decision-making and useful for companies' management whose activity involve choice of acquisition targets.

As a scientific contribution, this paper can propose deepening knowledge about the role of financial results of acquired companies in successful/unsuccessful acquisition deals among companies from the BRICS countries.

The primary aim of this research is to identify how target financial performance relates to the acquisition deal success and given with results to develop certain recommendations for BRICS acquirers.

The paper is divided into three sections. The section 1 examines theoretical foundations of the topic and the field of M&A by introducing necessary definitions, concepts and approaches used by researchers to investigate acquisition events. It also discusses main studies in the field and justifies research question and hypotheses. The section 2 explains the choice of methods for the research, data collection and sample description. The section 3 presents results obtained in regression analysis, develops its interpretation and gives a comparison with the results achieved by other studies. The remaining part of the paper gives more subjective discussion of the results including limitations of the study and discussion of scientific contribution of the work.

LITERATURE REVIEW

Theoretical framework

Acquisitions can be explained by different motives; nevertheless, this study confines itself by the field of efficiency theory. It considers takeover as an instrument for improving efficiency of a target firm [Lee, Lee, 2013]. Differential efficiency theory implies that bidders are more efficient than targets, that is why acquisition of a less efficient company gives an opportunity to bring its efficiency to acquirer's own level by sharing business experience and management quality [Copeland, Weston, 1988]. Also, it is crucial to mention free cash flow hypothesis. Under this concept, one of the main motives of acquisition refers to a necessity of a bidder for rational management of its financial assets. The hypothesis suggests that acquirer has spare cash assets because of its business activity and decides to invest this money by acquiring the firm in case when acquisition suggests positive net present value [Jensen, 1986]. Thus, bidder company considers such acquisition as an investment, and target firms with weak balance sheets now can cover their debt having access to investment funds of a buyer [Johnson et al., 2017]. Moreover, new owners often decide to change the management of a target company aiming to increase its efficiency. This theory fits well the theoretical basis of the paper, because the study investigates the role of financial performance of target firms, paying thorough attention for acquisition deals with lossmaking targets.

Another motive to conduct an acquisition is a synergy effect that happens after M&A deals as a result of sharing knowledge and resources between organizations. According to [Cole, Vu, 2006], mergers and acquisitions can create value by making operating synergies that can happen in the form of economies of scale or economies of scope. The researchers state that economies of scale have the highest chances to be realized when companies operate in the same line of business

combine operations while economies of scope is likely to appear when both firms are in the same chain of supply combine operations. Thus, the scale synergy effect occurs in horizontal takeovers, while scope one can be created in a vertical interaction.

At the same time when deal parties are engaged in completely unrelated business operations or operate in different industries the deal benefit is not transparent. Nevertheless, [Cole, Vu, 2006] point that such deals (known as conglomerate M&A) can obtain financial synergies as opposed to operating ones. By having cash flows diversified through the acquisition of firm operating in another sector, a bidder can borrow at lower interest rates (looking more solvent and reliable for banks) and decrease its weighted average cost of capital.

For further work, it is also important to introduce the meaning of acquisition efficiency (or acquisition performance). Within acquisition deal framework, efficiency is regarded as a synonym of the word "benefit" (or "profit" in financial terms). Of course, the motives behind an acquisition deal are not always transparent and the results of this event may bring various strategic, reputational or resource advantages, but the ultimate goal of any business decisions is profit or economic benefit (not considering such phenomenon as social entrepreneurship). Researchers employ several methods to calculate the economic performance of acquisitions depending on the research goals and data available for study [Papadakis, Thanos, 2010] identify three most used approaches to calculate the performance of an acquisition: accounting-based, stock-market-based and managers' subjective assessment. We structured the literature review based on this typology.

Accounting-based literature

Some researchers identify the main goal of a business as to earn a required return on capital [McGee, Thomas, Wilson, 2005]. Thus, the idea behind first method refers to measuring the accounting-based profitability ratios of the company (such as return on assets, return on investments etc.), because they more precisely reflect the effect of acquisition on financial performance.

The methodology of accounting-based approach relies on comparison of post-acquisition and pre-bid returns of both acquiring companies and targets. Despite many researchers employing this approach come to ambiguous statistical results, its major advantage is that synergy effects of companies engaged in acquisition deal are well reflected in long-term accounting measures [Hitt et al., 1998]. For instance, the study of 2941 acquisitions made by UK firms from 1948 to 1977 and comparing their performance to the performance of non-acquiring companies revealed that non-acquiring firms outperformed bidders by 2.4 % in each of the 18 post-acquisition years, proving that acquisitions rather destroy than create value [Dickerson et al., 1997, p. 360]. In contrast, the study of 50 largest US mergers happened during 1979–1984 revealed that firms showed significant positive changes in asset productivity and higher operating cash flow returns during five-years window after the acquisition [Healy, Palepu, Ruback, 1992].

It should be noticed that accounting-based calculation includes only the past performance of a firm [Chenhall, Langfield-Smith, 2007]. Also, it is important to understand that measuring acquisition performance with accounting-based indicators may suffer from inherent noisiness like restatements, write-downs, changes in depreciation or amortization policies, as well as changes in accounting standards over time [Renneboog, Vansteenskiste, 2019]. Moreover, it is crucial to mention that target firms have different quality levels of accounting [McNichols, Stubben, 2014]. Authors statistically proved that acquirers' returns are higher when target accounting quality is higher. They state that accounting reports of a high-quality level allow bidder to pay "fairer" price in acquisition. Not adjusting the calculation for quality of targets' accounting may entail bias,

at the same time it is difficult to convert the quality of accounting into numeric scale. In addition, financial statements of companies are an element of business that is often manipulated by the company's management in order to enhance the company's attractiveness for investors or to maximize their personal managerial benefits (in the form of bonuses for the company's financial achievements that often depend on reported financial performance).

Some of the studies tend to use accounting measures in order to focus on operating performance of firms (e. g., the authors of the work [Healy, Palepu, Ruback, 1992] used pre-tax operating cash flows), thus, observing changes from operating synergy. Observing companies' performance three years before and three years after a deal, the researchers concluded that mergers are more likely to create value, rather than destroy it. The industry-adjusted operating return of firms were increasing during the post-bid period.

However, this approach may be less useful in reflecting the benefits of acquisitions made across countries or industries, since it does not consider possible financial synergies mentioned earlier. Moreover, it is important to take into account the potential optimization of the tax burden. According to [Majd, Myers, 1987], tax treatment of income assumes that profits generate a tax liability, but losses do not generate a tax credit, what diversified firms can partly avoid by spreading gains and losses across business segments. The use of operating cash flows or the company's final after-tax return are both applicable in research but correspond to different work focuses.

Market-based literature

Stock-market-based approach of calculating the acquisition performance is based on cumulative abnormal returns and implies comparison of real returns of a security with expected returns. Anticipated returns are

calculated using capital assets pricing model (CAPM model) and historical data of stock prices. The method assumes the theory of market efficiency, which implies that the price of a stock already reflects "all currently available public information and adjusts to the public release of new information instantaneously" [Boateng, Qian, Tianle, 2008, p. 262]. Researchers employ stock-market-based measures for short-term analysis. Theory of market efficiency allows to analyze effect of rumors using short term information of stock prices pre- and post-acquisition, while long-term share price changes reflect the effects of business transformation as a result of acquisition deal. It is assumed that beneficiaries of the acquisition are new owners of the company, shareholders.

Thus, the main advantage of using stock prices measures in the study is that changes in market price can better represent returns of shareholders, since the company's goal is maximizing shareholders' wealth [McGee, Thomas and Wilson, 2005]. At the same time, some of the researchers argue that the approach has one significant limitation: since stock prices contain all publicly available information, they also contain expectations of the market [Grant, Jammine, Thomas, 1988; Montgomery, Wilson, 1986]. This disadvantage can be most pronounced when using short-event window because of rumors and intense reaction of the market in the moment of the event announcement.

R. DeLong used a 12-day event period (short-term window) on the sample of 280 deals in banking sector and found out that acquisitions produced positive returns for 88.6 % of the target firms studied [De-Long, 2001, p. 248]. However, the author mentioned certain concerns to the results of the work, noting that market expectations often do not coincide with the real future cash flows in the banking sector, that is why acquisition performance can suffer from expectation bias. S. Sudarsanam and A. Mahate investigated how the type of acquisition (hos-

tile/friendly) is related to the performance of acquisitions. Researchers applied stock-market approach for a sample of 519 acquisitions of UK target firms during 1983–1995. They estimated acquirers return during the three-year post-acquisition period and figured out that hostile acquisitions create significantly higher shareholder value than friendly acquisitions. Nevertheless, in general, acquisition effects observed on long-term showed either negative or insignificant abnormal return for acquirers [Sudarsanam, Mahate, 2006].

In another study researchers investigated the efficiency of cross-border acquisition deals in China and applied a market-based approach to evaluate the efficiency of deals [Black et al., 2013]. The authors studied the profitability of the companies' stocks during a short time window (three days before and after the announcement of acquisition deal), as well as a long period (two years). Applying multivariate analysis, they concluded that, in general, domestic acquisitions result in a statistically significant long-term loss of 7.98 %, however cross-border acquisitions generated insignificant returns of 14.20 %. At the same time, short-term reaction occurs to be the opposite: domestic acquirers have a 2.76 % return on average after the announcement, while foreign bidders generate losses of 0.58 % [Black et al., 2013, p. 923–924].

R. Morck and B. Yeung argue that internalization theory can explain motivation of organizations to conduct cross-border acquisitions. Cross-border acquisitions can be advantageous for acquirers as they enhance their value through expansion of operations abroad, especially for companies that own valuable intangible assets (such as strong production skills, patents and licences, marketing capabilities, brand loyalty etc.) [Morck, Yeung, 1992]. Hence, the results of E. Black and coauthors [Black et al., 2013] conform the main ideas of the theory showing that cross-border acquisitions in China are likely to create value in long-term rather than destroy it.

Management assessment literature

Another cluster of literature is related to managers' subjective assessment approach of measuring the performance of corporate acquisitions. It is a less popular approach in scientific literature and is based on opinion of bidder executives. Managers are asked whether company goals set before acquisition were accomplished in a post-deal period. The concept has relative advantage because it allows to include in the model not only financial measures but also nonfinancial factors: competitive position, personnel development, managers' prestige [Papadakis, Thanos, 2010]. Authors summarized that the majority of studies based on this approach report 44−55 % of acquisitions failing to achieve their initial goals. On the one hand, no one knows better whether the goals set for the acquisition were met. In this regard, the assessment of the situation by those who made the purchase decision is an accurate metric. On the other hand, some researchers [Lubatkin, Shrieves, 1986] argue that the views expressed by executives may contain managerial bias. This is the reason why the results of studies based on managers' opinion approach have specific application and are not suitable for wide use. This study is not going to employ managers' assessment approach because of its significant limitations and lack of resources necessary for conducting a questionnaire for chosen companies.

Summing up the analysis of the scientific literature on this topic, it is important to note that there is a fairly large number of studies evaluating the success and failure of corporate mergers and acquisitions, as well as factors that affect the outcome.

However, no papers with a similar research question were found in the public access, therefore, it is crucial to rely on the experience of researchers with related research questions. Most of the works were based on the event-study method, considering different time windows in the market approach [Sudarsanam, Mahate, 2006; Black et al.,

2013; Delong, 2001; Boateng, Qian, Tianle, 2008].

In general, short-term studies observe negative returns after the acquisition while long-term research indicate either negative or insignificant abnormal returns. Studies based on the accounting method showed two-fold results with some studies proving positive effect of acquisitions (e. g., [Healy, Palepu, Ruback, 1992; McNichols, Stubben, 2014]), and some stating negative returns (e. g., [Dickerson et al., 1997; Papadakis, Thanos, 2010]). Works based on the managerial opinion approach have not gained such popularity in the scientific community but showed that about 44–45 % bidders do not reach desired benefit from acquisition.

Hypotheses and research question

Despite existing literature gives sufficient information about methodology used for analysis of acquisitions' performance, it mostly focuses on acquiring companies; there is a lack of studies investigating the role of targets' financial performance in acquisition process. In order to address this issue, this research focuses upon this research question.

RQ. How does the financial performance of a target firm relate to the acquisition deal success?

Reformulating stated above, the paper is going to explore whether performance of acquisitions does depend on financial results of target firms before the acquisition. The logic behind this issue lies in an assumption that investment attractiveness of the company is often associated with generating significant profit. Since many firms consider acquisitions to be a superior way of investing their resources [Bruton, Oviatt, White, 1994], organizations often tend to make their acquisition decisions based on the expected economic benefit just like in investment decision-making. Understanding the relationship between profitability of a target and acquisition performance may reveal cer-

tain insights of how successful BRICS acquirers choose targets.

The first hypothesis is based on the perception that acquisitions in developing countries (such as BRICS) are more likely to destroy the value rather than create one due to low M&A experience [Bertrand, Betschinger, 2012].

Hypothesis H1. In general, acquisitions involving BRICS firms lead to a decline of financial performance.

The second hypothesis is based on the assumption that targets which are financially consistent before the acquisition, require less investments from outside to maintain the efficiency level and bring it up to the level of acquirer (in terms of efficiency theory, e. g., [Lee, Lee, 2013]). Also, it is supposed, that operational synergy effect becomes stronger between two financially sustainable organizations.

Hypothesis H2. Acquisitions of targets with positive financial performance are more likely to obtain positive acquisition outcome.

The third hypothesis relates to the cross border factor that may also influence the performance of acquisition. Internalization theory explains the benefit obtained by bidder through international acquisition as the potential value increase induced by expansion of acquirers operations [Morck, Yeung, 1992]. As noted by O. Bertrand and H. Zitouna, multinational enterprises (MNE) are expected to have higher performance for cross-border operations compared to domestic ones [Bertrand, Zitouna, 2008]. Thus, local subsidiaries of MNE can take sinificant advantage by accepting valuable knowledge from parent company as well as have better access to foreign markets. Since this paper pays thorough attention to targets with poor financial performance, the factor of cross border takeover also must be considered.

Hypothesis H3. Cross-border acquisitions are more likely to be successful as opposed to domestic acquisitions.

The fourth hypothesis refers to the "diversification hypothesis" discussed by [Lee, Lee, 2013] and considered as one of the
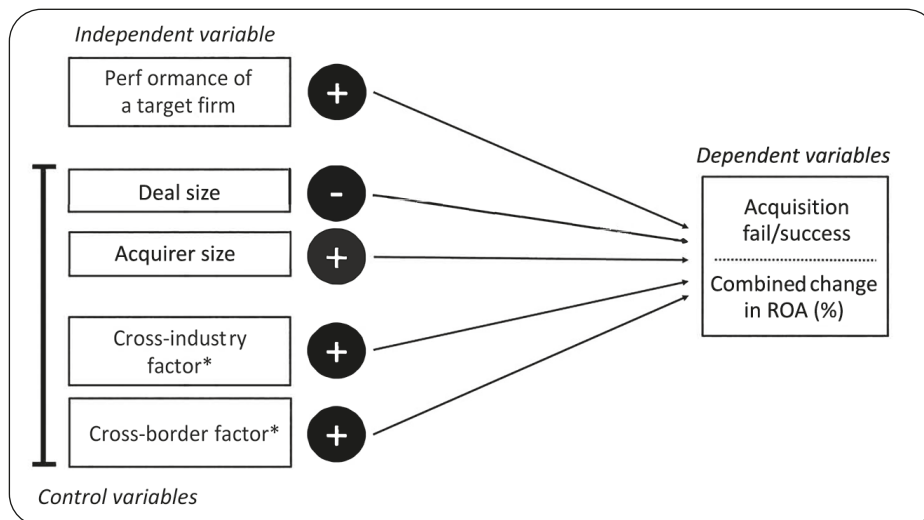
Fig. 1. The conceptual framework of the study

N o t e s: the sign ("+" or "−") beside variable boxes indicates expected relationship
with dependent variable; * — in binary vriables "1" stands for "cross-".

takeover motives. The idea relates to conglomerate acquisitions and supposes that firms acquiring targets that operate in unrelated industries apply this strategy to reduce risk and ensure future cash flows coming from new business segments. Besides, conglomerate acquisitions allow firms to increase their performance through obtaining financial synergy [Cole, Vu, 2006]. Thus, the research design requires to control cross industry factor through a new variable.

Hypothesis H4. Cross industry acquisitions have higher chance to obtain positive outcome as opposed to within-industry deals.

In addition, the size of acquiring company may influence the performance of acquisition since it is assumed that bigger acquirers have more resources (material, financial as well as human resource) that can help to create stronger synergy between merging firms. The study investigating sample of 366 M&A deals in BRICS countries also revealed positive relationship of the acquirer size and deal effectiveness at the 10 % significance level [Luzina, Rogova, 2015].

Hence, the fifth hypothesis explores the relationship between the size of the acquiring company and the acquisition performance.

Hypothesis H5. The size of acquirers has positive effect on the acquisition performance.

The sixth hypotheses supposes that a deal size also can influence acquisition performance. It is assumed that bigger deal size can impose higher costs related to acquisition process as well as offer price itself significantly shortens financial resources available for bidder firm.

Hypothesis H6. The deal size has negative effect on the acquisition performance.

The conceptual framework of this study (Figure 1) includes a dependent variable (acquisition efficiency measured as combined change of companies' performance), an independent variable (financial performance of the target firm before the acquisition, measured as profitability factor) and several control variables, such as the size of the acquiring company, deal size, cross-border factor and cross-industry factor.

The hypotheses developed in this study help to cover the gap in the literature and

to focus better at the performance of target companies in the long-term.

METHODOLOGY

The basic methodology chosen to measure acquisition performance is accounting-based approach. The method implies calculating the change in reported financial performance of both acquirer and target company by comparing post-acquisition returns to the weighted average of pre-bid returns of each of the target and acquiring firm [Sudarsanam, 2003]. As mentioned in the literature review, this method has an advantage over others, since it allows to consider changes in operating and financial activities after the acquisition. At the same time, its main drawback is the exposure of financial statements to managerial manipulation through earnings management and changing accounting policies [Stanton, 1987], as well as the fact that reporting reflects the company's results in the past, without indicating the present [Chenhall, Langfield-Smith, 2007]. Moreover, stock market approach which is the main alternative to objectively calculate acquisition performance, seems to be especially unstable metric when measuring long-term acquisition effect, as the fast-changing external economic and political environment of BRICS countries may lead to significant stock market fluctuations.

As it was discussed earlier, scientific literature applies several methods to measure this effect. Some researchers focus on operating income flows and calculate the return to assets based on operating performance [Healy, Palepu, Ruback, 1992], others take overall financial performance by applying general return on assets measurement [Papadakis, Thanos, 2010].

Having data with companies from both BRICS countries and outside and number of cross-industry deals, it was important to focus not on the operating activities of the companies but on the overall profitability. To do this, simple ROA measure was used:

$$ROA = \frac{NI}{Average\,total\,assets}, \qquad (1)$$

where NI — net income as stated in income statement at the end of the year; *average total assets* — average total assets over the year as stated in balance sheet.

This approach does not allow to take a closer look at the changes in the financial performance of the firms after the acquisition, but it gives an opportunity to take into account the possible effects of financial synergy arising between organizations [Cole, Vu, 2006]. G. Meeks and J. Meeks compared profit/sales ratio, ROE (return on equity) and ROA as relevant metrics of M&A performance. They concluded that *ROA* is the most suitable measurement since it is less affected by changes in leverage and bargaining power appearing as a result of the deal [Meeks, Meeks, 1981].

The period of analysis (i.e., event window) was set to be two years before and after the year of acquisition. According to [Morosini, Shane, Singh, 1998], two years is a sufficient period to complete the integration of organizations. Therefore, 2-year event window allows to focus on the relatively long-term effect of acquisition but deprives the study of the opportunity to measure possible multi-year shifts in performance (although the longer is the period, the higher chances to miss other factors influencing the performance of the firms).

In order to measure the deal efficiency through *ROA*, researchers compare combined *ROA* performance two years before and after the acquisition [Papadakis, Thanos, 2010]. The formula used to calculate change in ROA can be expressed as follows:

$$\Delta ROA = ROA_{t+2} - ROA_{t-2}, \qquad (2)$$

where ROA_{t+2} — stands for asset-weighted mean of *ROA* of both acquirer and target company two years after the acquisition;

ROA_{t-2} — asset-weighted mean of ROA two years before the acquisition.

Acquisition that leads to a positive ΔROA were considered as successful while deals decreasing combined ROA were perceived as failure. Some of the acquired targets ceased to exist after the deal, becoming subsidiaries of their parent companies. Thus, as financial reporting changed in these situations, the acquirer financial performance values used in further calculations.

The difference between formula above and the calculations of [Papadakis, Thanos, 2010] is that authors also adjusted the changes of ROA to the industry benchmarks. However, the researchers studied only Greek M&A, while data of this work contains not only BRICS countries, but firms abroad. To use benchmarking properly, the method requires to have ROA norms for all the industries in the sample, containing different years and countries. Hence, the search of this data did not bring results. Despite the methods of this paper have no industry adjustment, it can be argued that benchmarking is not an effective strategy to use for developing capital markets, as their economy development is relatively unstable. Moreover, the event window of this study can limit this effect as it is supposed that industry norms of ROA do not change dramatically over the several years.

Data and variables

The data used in the study was collected from online M&A database Zephyr (by Bureau van Dijk[1]) and Refinitiv Eikon[2] (Reuters database). Data contains deal characteristics (such as deal size, industry and country of firms), some positions from financial reports of the companies (net income, total assets before/after acquisition) as well as calculated ROA before and after

the deal. The data selection process was based on convenience sampling technique relying on data available and included the following steps:

1) the data includes only completed confirmed acquisition deals;
2) the time period was limited by 2000–2017 years (since the methods require to have data available for two years after the acquisition, 2017 was set to avoid the effect of pandemic crisis in 2020);
3) at least one of two companies involved in each acquisition deal must be from BRICS countries;
4) the initial stake of acquirer was set to 49 % maximum, while after-deal stake in a company must count at least 51 % (controlling interest); the minimum stake acquired in a deal is 10 % (to avoid minor purchases);
5) both companies must be listed and public at the moment of acquisition with deal size being at least 5m USD.

After collecting the acquisition deals conforming criteria stated above, the data was cleared of duplicates and excluded observations having missing values. Missing values in the financial performance of some Russian firms were collected from SPARK, information service of Interfax containing accounting and financial data of Russian entities. Retrieved sample was cleared of deals involving companies from financial sector, as they have different reporting standards, and the specifics of their industry do not allow to compare them with other companies using the chosen methods. The final version of the sample contained 70 acquisition deals.

Although the size of the sample is not large, we believe it is sufficient for making conclusions. Research analysts with direct deal submissions from global banking and legal contributors verify all acquisitions' content provided by Refinitiv and Zephyr databases. Therefore, the sampling based on the availability of values in datasets shall include the most significant transactions for the industries to consider, both in terms of

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[1] Zephyr database. URL: www.bvdinfo.com (accessed: 22.02.2022).

[2] Refinitiv Eikon. URL: https://eikon.refinitiv.com (accessed: 22.02.2022).

the scale of acquisition and strategic initiative. In addition, since one of the criteria for deals' selection was the factor of companies' publicity, the sample is aimed at analyzing real acquisitions that exclude transactions for the formal transfer of assets within one group or owner.

The dependent variable (acquisition performance) is treated in two ways. First, the variable *Deal_success* is responsible for the fact of fail/success of each acquisition, where "1" stands for success. The change of combined ROA was taken as the second measure of acquisition performance (*ROA_change* variable). Thus, two regressions were applied: logistic regression for success of the deal and OLS for change in ROA. The analysis was made using Stata (version 14.2), analytical tool to analyze the data with statistics.

The variable of interest is stated in RQ as the financial performance of the target firm before the acquisition. To separate acquisitions of profitable and lossmaking companies, regressor was transformed into binary variable (*Profitability_dummy*) where "1" means that acquired target is profitable (positive net income), while 0 stands for targets having no positive returns. Having this variable, it is possible to analyze the effect of profitability fact on post-acquisition returns.

List of the variables used in main regressions (see full list in Appendix 1):

deal_success — "1" for success, "0" for fail;

ROA_change — change in combined ROA (%);

profitability_dummy — "1" for profitable target, "0" for the opposite;

deal_size — deal value (in USD m);

cross_border — "1" for cross-border deal, "0" for within-country;

cross_industry — "1" for cross-industry deal, "0" for within-industry;

l_acq_size — log(acquirer total assets before the deal).

Descriptive statistics

Since the list of acquisitions was gathered based on availability of financial data, the year distribution in the sample is not expected to reflect the distribution of population (which is all deals in BRICS countries over the entire period). As it is seen in the Table 1, most deals are concentrated in 2006–2014 period (53 acquisitions), while the rest of acquisitions distributed between the early 2000s and several last years.

Table 1

Distribution of acquisitions in the sample by year, 2000–2017

Year	Number of deals
2000–2002	3
2003–2005	7
2006–2008	21
2009–2011	15
2012–2014	17
2015–2017	7
Total	70

Based on: Zephyr database. URL: www.bvdinfo.com (accessed: 21.07.2021).

The largest number of acquisitions were made by firms from BRICS countries and the United Kingdom (Figure 2). At the same
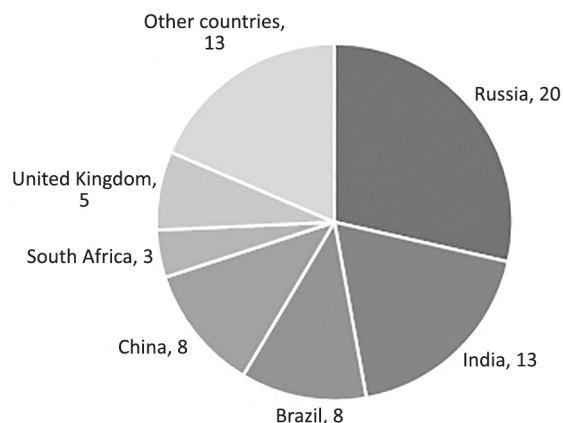

Fig. 2. Distribution of deals in the sample by acquirer nation, 2000–2017

Based on: Zephyr database. URL: www.bvdinfo.com (accessed: 21.07.2021).

time, the sample includes acquirers from United Kingdom, France, Canada, Germany and other countries not presented in pie chart. It is worth noting that the target companies have a more concentrated distribution, only a few deals were made with the participation of targets outside the BRICS. Nevertheless, distribution of targets by country is similar to acquirers: the majority of target are from Russia (23 deals), followed by India, Brazil and China (with 19, 10 and 9 deals respectively).

The list of deals consists of 25 cross-border acquisitions (where acquirer nation ≠ target nation) and 45 within-country deals (Table 2). As it was revealed from the sample, cross-border deals were strictly divided by two directions: inside BRICS and outside BRICS. That means there are no deals where both acquiring and target firms would be from BRICS countries (with one exception). Hence, it was decided to create a categorical variable (*sided_cross_border*) having three values: "BRICS acquirer", "BRICS target", "Within country". These labels can be used to analyze how deals success is distributed among categories. New variable gives an opportunity to see whether BRICS acquirers are good in creating value as compared to the deals where BRICS firms have role of targets. Thus, the sample contains 45 "Within country" deals, 18 "BRICS target" acquisitions and 7 deals where BRICS bidders acquired firms outside.

Table 2

Distribution of acquisitions in the sample by cross-border and cross-industry factors, 2000−2017

Cross_border	Cross_industry		Total
	0	1	
0	26	19	45
1	16	9	25
Total	42	28	70

Based on: Zephyr database. URL: www.bvdinfo.com (accessed: 21.07.2021).

As it is seen from the Table 2, the majority of acquisitions were made within the same industry (42 deals), indicating that these firms acquired their competitors, or the companies engaged in related activities. The rest of acquisitions (28 deals) stand for conglomerate acquisitions.

Since the theoretical field of this work includes the theory of efficiency in acquisitions, it was decided to introduce separate variables (*ROA_targ_change* and *ROA_acq_change*) showing individual changes in ROA of target companies and buyers, that were simply calculated as the difference between post-deal and pre-bid ROA's for each firm. It is assumed that this variable will allow to see how individual performance has changed in acquisitions with lossmaking and profitable targets. According to [Lee, Lee, 2013], acquirer can raise the efficiency of target at least to its own level. Thus, takeover is seen as the instrument to solve the problem of target's inefficiency. Moreover, it is argued, that inefficiency of target is easily noticed by acquirers from the same industry, but not obvious for companies from other industries. In addition, during negotiations bidders can reveal additional information not available to other market participants, which can influence their acquisition decision [McNichols, Stubben, 2014]. This means that acquirers of lossmaking targets see the prospect in acquisition of inefficient company, since they are partially confident in having enough resources to get the firm out of a difficult financial situation. Hence, in order to focus on the increase of targets operating efficiency caused by acquirers' management strategy, it is decided to control for cross-industry factor and include individual ROA changes only for within-industry acquisitions (resulting in 42 observations).

RESULTS AND DISCUSSION

The analysis is built on a limited number of variables so it is assumed that variables not mentioned in the research may also have

significant influence on dependent variable. Nevertheless, if some of the hypotheses made in this paper are rejected, the analysis may require new variables to include in the research to explain unexpected results. Before using statistical regressions, all control variables used in the analysis were checked for multicollinearity problem with the help of pairwise correlation tool in STATA and confirmed low relationship (see the results in Appendix 2).

As a result of the analysis, the variable *deal_success* standing for the success of the acquisitions, where a positive change in the combined return on assets was considered a success, showed an average value of 0.4 for the sample. This means that 40 % (28 deals out of 70) were successful, and the rest failed to improve their financial results. Hence, the first hypothesis of this study cannot be rejected. These results can indicate that, in general, acquisitions involving firms from BRICS countries struggled to deliver value from the deals, as compared to the average 50–56 % success rate often reported in the M&A literature (e. g., [Papadakis, Thanos, 2010]). These results contradict with findings of D. Luzina and E. Rogova [Luzina, Rogova, 2015], who concluded with 80 % of successful deals in BRICS, and of S. Sudarsanam and A. Mahate [Sudarsanam, Mahate, 2006] who indicated significant positive post-acquisition returns. However, these works used different methods and time periods, hence, the samples also differ significantly. At the same time, the results support position of other authors who reported that on average M&A deals fail to enhance post-acquisition performance [Dickerson, Gibson, Tsakalotos, 1997; Cole, Vu, 2006].

Findings of this work can be explained in several ways. First, as it was already mentioned earlier, insufficient M&A experience of companies from developing markets can influence their ability to deliver value from acquisitions [Bertrand, Betschinger, 2012]. The second possible explanation relates to the limitation of the data. Since the great share of acquisitions in the sample was made

in 2006–2008 (Table 1), observed post-acquisition period (two years after-bid) for these deals could be affected by consequences of global financial crisis 2007–2008. Not adjusting the calculations to the market averages can result in a higher amount of unsuccessful acquisitions during this period.

Overall, logistic regression model predicts the outcome of 72.86 % acquisitions correctly (Table 3). Both negative and positive acquisition results were predicted with more than 70 % accuracy. At the same time, ordinary least squares (OLS) regression's statistically significant determination coefficient (R^2) appeared to be 0.196 which means that relationship between dependent variable and variables included in the model explains 19.7 % of the variation.

Profitability dummy. Running two regressions (logit model for binary dependent variable *Deal_success* and OLS for continuous variable of combined *ROA_change*) with the same control variables enabled to compare similar models and conclude with different interpretations (Table 3). Logistic regression

Table 3

Total results of logit and OLS models

Variable	(1) Deal_success	(2) ROA_change
Profitability_dummy	−1.279** (0.607)	−6.352*** (2.002)
Cross_border	0.794 (0.559)	3.764** (1.850)
Cross_industry	0.986* (0.542)	0.513 (1.808)
Deal_size	0.000186 (0.000164)	−0.0000613 (0.000556)
l_acq_size	0.0904 (0.113)	0.783** (0.377)
Constant	−1.195 (0.979)	−6.271* (3.259)
Observations	70	70
R^2		0.197
Correctly classified	72.86 %	

Notes: standard errors in parentheses; ***, **, * — indicate statistical significance at 1, 5 and 10 % respectfully.

gives an opportunity to classify each acquisition by two outcomes: success and fail, and work with relationship of independent variables and probability to obtain deal success. At the same time, OLS regression allows to interpret these relationships in numeric scale. Thus, both models showed that *Profitability_dummy* variable has negative influence on the probability of performance increase after the acquisition. In other words, acquisitions of targets with positive performance are less likely to have successful acquisition results, which means that *hypothesis H2* can be rejected at 5% level of significance. OLS regression also proved negative relationship of the variables at 1% significance. The coefficient in this model can be interpreted as follows: acquisition of profitable target firm is associated with 6.352% decrease in combined *ROA*.

Despite this result did not meet expectations, it can be explained by particular motives of companies to acquire lossmaking targets. It is possible that results reflect other uncommon benefits obtained from acquiring financially unattractive firms. For instance, it is supposed, that companies performing badly can be bought with a discount (as opposed to traditional premium paid to shareholders in takeovers). Especially during recession periods, many firms performing badly may become a target of acquisition [Angwin, Meadows, 2012].

During tough times, the market may not notice the value of unprofitable companies and underestimate its assets, which leads to a lack of competition from acquirers and favorable acquisition prices. Risky purchase can be justified by opportunity to purchase valuable assets at lower price. To check this assumption, it was decided to collect additional data for the deals with unprofitable targets. The sample contains 20 acquisitions out of 70, where acquirers purchased lossmaking targets. The data on bid premiums (*Bid_premium* variable) was collected for 16 acquisitions out of 20 because of missing data. The values were partly gathered from Refinitiv Eikon database and partly calcu-

lated manually based on offered price (*Deal_size* variable) and enterprise value before acquisition:

$$Bid\ Premium = \frac{(DV - EV)}{EV}, \qquad (3)$$

where DV — stands for deal value/size indicating the price offered for the target; EV — enterprise value of target firm calculated as (Market Capitalization + Market Value of Debt — Cash and Equivalents).

Average bid premium for these acquisitions appeared to be −4.26%, what means that on average, lossmaking targets were acquired with a discount. This result corresponds to the hypothesis, that low price can be one of the factors influencing the decision of acquirers. Since the bid premiums of this subsample are not distributed normally (Shapiro-Wilk test indicates that data is significantly different from normal distribution: $W = 0.81$, $p = 0.003$), it is not correct to rely on the results of *t-test* (that also reports mean difference to be insignificant; $t = 1.38$), however, it is possible to record insignificant average bid premiums for both successful and unsuccessful deals (see STATA outputs in Appendixes 3, 4). 7 failed acquisitions show 2.31% of acquisition premium on average, while 9 successful deals can be characterized by 9.38% average discount (Table 4), which means that successful acquisitions of lossmaking targets are associated with noticeable discount.

Table 4

Average bid premiums by successful/ unsuccessful acquisitions

Deal_success	Mean
(7 observations) 0	0.0231
(9 observations) 1	−0.0938
Total	−0.0426

As noted by D. Datta, G. Pinches and V. Narayanan [Datta, Pinches, Narayanan, 1992], paying high premiums decreases the probability for acquirers' shareholders to

benefit from an acquisition, since higher acquisition costs reduce future financial returns. Thus, acquirers can manage to deliver value from purchasing unprofitable firms through a lower bid cost (relative to acquired assets) as opposed to those bidders that buy financially "healthy" targets and pay fair price.

Acquisition of financially inefficient organization requires a clear management strategy and sufficient resources to change the existing strategy of the company's development to a new one (so-called turnaround strategy). D. Angwin and M. Meadows argue that acquired companies with poor prior financial health are managed differently to other acquisitions [Angwin, Meadows, 2012]. The authors state that more than 80 % of turnaround strategies are characterized by major changes in top management, stronger financial controls and attempt to focus on new product market, as well as costs reduction. More than a half of applied strategies focus on the reduction of debt (often with the help of acquirer's resources). These findings can support the obtained results by explaining that financially unhealthy targets are managed in a way to increase financial sustainability and performance.

Another possible explanation of negative relationship between target's pre-bid performance and acquisition success refers to efficiency theory [Lee, Lee, 2013; Boateng et al., 2008]. Under the assumption that post-acquisition synergy and guidance by owner-company can enhance efficiency level of target up to the level of acquirer, it can be argued that acquisitions of lossmaking target firms can create higher value, since the initial difference in efficiency is bigger as compared to deals where both companies are financially sustainable. In order to work with this assumption, data includes such variables as *ROA_targ_change* and *ROA_acq_change* to describe the individual post-acquisition shifts in performance.

Since the data contains conglomerate acquisitions with companies operating in different industries, the variables were calcu-lated only for within-industry deals (42 observations) with purpose to focus on those takeovers, where acquiring company could influence the operating efficiency of target by sharing its business experience and create operational synergy, thereby, enhance firm's efficiency [Cole, Vu, 2006].

The average individual ROA changes distinguished by *profitability_dummy* groups are presented on the Table 5. Despite acquirers' mean ROA change appeared to be insignificantly different between groups, target change showed significant difference ($t = 2.47$, $p < 0.05$). Consequently, this result can indicate that lossmaking targets noticeably improve their financial performance after the acquisition (9.44 % increase in ROA), while profitable targets can even decrease its ROA on average. These findings are consistent with the assumptions of efficiency theory, so it is possible to suppose that acquisitions of unprofitable targets in the same industry can deliver value by enhancing the efficiency of financially weak firms. Negative average ROA change of acquiring firms can be explained by costs associated with integration process.

Although the results correspond to the theories and assumptions mentioned earlier, these calculations have a limitation. Since the sample contains acquisitions where targets cease to exist after takeover, several acquisitions can affect the findings because targets' post-bid performance has mutual performance with parent company (what automatically increases target's ROA).

Cross-border factor. Both logistic and OLS models reported positive relationship between cross-border factor and acquisition performance (Table 3). Logit model indicates positive insignificant influence of cross-border parameter with the probability of successful acquisition outcome. OLS regression shows that cross-border acquisitions are associated with 3.74 % increase in combined post-bid ROA compared to domestic deals (this relationship is significant at 5 % level). Thus, the *hypothesis H3* cannot be rejected. These results are consistent with previous findings

Average individual ROA changes by successful/unsuccessful deals

Profitability_dummy	ROA_acq_change	ROA_targ_change
(12 observations) 0	−1.530	9.442
(30 observations) 1	−3.103	−1.549
Total	−2.653	1.591

Average success rate by type of deal

Region of the deal (sided_cross_border)	Number of observations	Mean
BRICS acquirer	7	0.428
BRICS target	18	0.5
Within country	45	0.355
Total	70	0.4

of authors [Boateng et al., 2008; Black et al., 2013], who also indicate that on average cross-border M&As are proved to create value for companies. Besides, results are supported by internalization theory explaining the benefit from cross-border deals [Morck, Yeung, 1992] and the theory of MNE stating that multinational enterprises have significant competitive advantages in local markets [Bertrand, Zitouna, 2008]. Hence, it can also result in higher success rate among cross-border acquisitions.

In order to classify the acquisitions by region directions, a new categorical variable *sided_cross_border* was used. As it is seen from Table 6, domestic acquisitions have the lowest success rate in the sample (35.5 %), while cross-border deals made by foreign acquirers (with the target from BRICS) were the most successful: each second acquisition was considered to be successful. Cross-border acquisitions with BRICS acquirers (targets are foreign firms) have lower success rate (only 42.8 % of firms experiences positive combined ROA change). Although, it can be argued that seven observations are too small

amount for subsample, hence, the role of convenient sampling could have significant effect on the mean success rate within this group. Nevertheless, the results correspond to the assumption that firms in BRICS countries struggle to create consistent value from M&As due to low experience [Bertrand, Betschinger, 2012].

Cross-industry factor. Logistic regression (Table 3) shows that cross-industry acquisitions are more likely to obtain successful outcome of the deal (with positive coefficient). Thus, the *hypothesis H4* cannot be rejected at the 10 % level of significance. At the same time, OLS model also indicates positive relationship, that can be interpreted as: cross-border statistically significant. These results can be supported with assumptions that cross-industry conglomerate acquisitions can create value through obtaining financial synergies as opposed to economies of scale and economies of scope playing its role in intra-industry integrations [Lee, Lee, 2013; Cole, Vu, 2006]. Besides, this partly corresponds to the findings of E. Black with coauthors who stated that "industry is not

Paper's results summary

Hypothesis	Result
H1. In general, acquisitions involving BRICS firms lead to a decline of financial performance	Confirmed
H2. Acquisitions of targets with positive financial performance are more likely to obtain positive acquisition outcome	Rejected (**)
H3. Cross-border acquisitions are more likely to be successful as opposed to domestic acquisitions.	Confirmed (**)
H4. Cross industry acquisitions have higher chance to obtain positive outcome as opposed to within-industry deals.	Confirmed (*)
H5. The size of acquirers has positive effect on the acquisition performance.	Confirmed (**)
H6. The deal size has negative effect on the acquisition performance	Not enough proof

N o t e s: in brackets the level of significance; *** — 1 %; ** — 5 %; * — 10 %.

an explanatory factor for long-term value creation" [Black et al., 2013, p. 928]. These authors also obtained positive but insignificant coefficients when studying Chinese firms.

Acquirer's size. Both models indicate positive relationship of acquirer's size and acquisition outcome (Table 3). Logit model reports positive insignificant coefficient, which means that bigger acquirers are more likely to obtain positive outcome from acquisitions. However, since the size of the company was defined as logarithm of total assets, the relationship should be interpreted as follows: 1 % increase in the acquirer's size is associated with 0.78 % growth in combined ROA. The size of acquiring company was expected to be positively correlated with the performance of acquisition. Thus, based on the results, *hypothesis H5* cannot be rejected at 5 % level of significance. Overall, the literature converges in opinion that the size of the firm plays significant role in acquisition outcome. The results correlate with the findings of D. Luzina and E. Rogova who also revealed that M&As in BRICS countries are characterized by positive relationship of the acquirer size and deal performance at the 10 % significance

level [Luzina, Rogova, 2015]. In addition, E. Black with coauthors [Black et al., 2013] argued that size of the company is not significant in short-term performance but have positive effect on bidder performance in long-term.

Deal size. The regression analysis showed rather ambiguous results on the relationship of deal size and deal performance variable. Table 3 demonstrates that deal size is positively related to the probability of acquisition to be successful. At the same time, OLS model suggests the negative correlation between deal size and dependent variable. Both coefficients are so small that nearly equal zero and can be rather interpreted as having no effect on acquisition performance. Nevertheless, it is important to note that both models report insignificant results, which means that there is not enough proof to draw a conclusion to hypothesis.

To conclude, the research resulted in four hypotheses being confirmed, one was rejected and one got no proof to neither confirm or reject it (Table 7).

The findings mostly correspond to the hypotheses and assumptions stated in previous studies and fit chosen theoretical framework.

CONCLUSION

Summary. This paper examines whether acquisition of poorly performing targets is associated with positive performance change and successful acquisition outcome. The results of this study suggest that acquisitions in BRICS decrease combined financial performance of the companies on average. The main finding of the work is that takeovers of initially lossmaking firms resulted in a higher success rate as compared to deals with financially healthy targets. Besides, the analysis proved that cross-border and cross-industry factors positively influence the performance of the deals and indicated positive correlation of acquirer's size and change in combined ROA. These results are mostly consistent with findings of previous studies in this field [Bertrand, Betschinger, 2012; Black et al., 2013; Boateng et al., 2008; Cole, Vu, 2006; Luzina, Rogova, 2015], reflecting the ideas of internalization theory, MNE literature and efficiency theory. Despite that, these findings should be considered as dubious due to significant limitations of the study.

Research limitations. One of the limitations of the study is relatively narrow 2-year time window which can miss some important performance shifts in long-term. Despite this period can be seen used in the literature (e. g., [Papadakis, Thanos, 2010]), research with a wider time interval can give more objective results and new interesting insights. Moreover, not adjusting the performance changes to industry benchmarks can affect results in both sides. If industry norms were decreasing, then some of the acquisition failures can be reconsidered as successful ones, and if the benchmarks were growing, the opposite reclassification can happen. Given the fact that great share of acquisitions in the sample were made in the pre-crisis and crisis years (2007–2008), it is difficult to separate the effect of external economic conditions from the impact of deal on the performance change. Hence, industry adjustments could give more objective results.

Managerial implications. Findings of the study can be useful for managers involved in M&A decision-making process related to BRICS, since the results provide a statistical proof on target performance and acquisition outcome relationship. Agency theory states that the interests of top management and owners of companies do not coincide even when making decisions on M&A. Management often chooses targets that are safe for themselves. Such acquisitions, for example, increase the size of the company to be more sustainable or reduce the risks of the organization by diversifying its cash flows [Lee, Lee, 2013], while the best decision for the company may be to take higher risks and acquire less financially attractive firm. As it is seen on the sample, management of acquiring company should not be afraid of purchasing unprofitable firm as far as they can critically evaluate whether the company has enough resources to extract value from integration. Moreover, it is important to understand that takeovers of inefficient companies can bear particular risks but give a good opportunity to possess valuable assets at an attractive price. Thus, this acquisition can become a good investment and a valuable strategic advantage.

In turn, legislative bodies should rather pay attention to the fact that BRICS firms have relatively low success rates in acquisitions. If we consider acquisitions as one of the most effective investment strategies, it turns out that acquisitions in the BRICS countries can, on the one hand, reduce market competition, while on the other, do not carry value for companies.

Contribution. This study contributes to the literature in several key ways. First, this paper examines the relationship between a firm's financial performance and the success of an acquisition (the topic poorly covered in the scientific literature). Second, the study focuses on both the fact of the takeover outcome (success or failure) and its numerical expression, which allows to get more specific conclusions about the impact of variables on the result. Moreover, the research

confines itself by acquisitions involving BRICS firms what allows to concentrate attention on fastly developing capital markets. Finally, this research shows that there is a certain category of acquisitions (deals with unprofitable companies), which is characterized by a higher takeover success rate. This finding adds interest to further research of this topic.

Further research. The topic of this research can be further developed by using broader data including other parameters of financial performance, such as liquidity or solvency of the targets before an acquisition. Bigger sample can also give an opportunity to analyze factor of relationship (friendly/ hostile) in acquisition, which is proven by literature as significant. The sample of this paper contained only several hostile acquisitions, so the proper statistical analysis of

this factor was impossible. Moreover, the time constraints can be broadened to five or more years in order to analyze long-term year-by-year performance transformation. Having proper data can also allow researchers to improve the methodology of this work by adjusting ROA change to industry benchmarks. The findings of this paper raise several interesting questions that can be investigated in future. First, one can focus their research on analysis of exact factors influencing the positive ROA change of target firms after an acquisition. Second, it might be relevant to make deeper analysis of acquisition motives reported by top management of acquiring company and connect these motives with following acquisition performance to understand which strategic decisions have higher chances to obtain positive outcome.

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Успешность сделок поглощений для целевых компаний в странах БРИКС

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На успешность сделок слияний и поглощений влияет множество факторов, среди которых можно выделить финансовое состояние поглощающей компании и компании-цели, реакцию рынка на информацию о сделке, условия контрактов, оформляющих сделку, и др. Цель статьи — выявить, какое влияние на успешность сделок оказывает финансовое состояние целевой для поглощения компании. Исследование ограничено рамками компаний из стран БРИКС — развивающихся крупных экономик, в которых устойчиво растет число сделок слияний и поглощений. На основе анализа финансовой отчетности рассчитано изменение рентабельности активов компаний до и после поглощения как показатель успешности сделок. С помощью регрессионного анализа оценивается взаимосвязь различных переменных и успешности сделок. Выборка составляет 70 сделок. Полученные результаты свидетельствуют о том, что в целом поглощения негативно отражаются на финансовом состоянии компаний, однако сделки с компаниями, имеющими до поглощения финансовые проблемы, более успешны, чем сделки с компаниями с благополучным финансовым состоянием. Кроме того, трансграничные сделки и сделки компаний из разных отраслей экономики имеют положительную взаимосвязь с финансовым состоянием компаний после поглощения. Новизна данного исследования заключа-

ется в том, что оценивается как собственно успешность сделки, так и ее численное измерение, что позволяет глубже понять факторы, на которые нужно обратить внимание при планировании таких стратегических инвестиций. Исследование помогает понять причины того, что поглощающие компании из стран БРИКС часто поглощают убыточные компании.

Appendix

Appendix 1. Full list of variables used in analysis

Variable	Description
Deal_success	"1" stands for success and 0 for fail
ROA_change	Change in combined ROA (%)
Profitability_dummy	"1" for profitable target, 0 for the opposite
Bid_premium	Bid premium expressed in fractions
Deal_size	Deal value (in USD m)
Cross_border	"1" for cross-border deal, 0 for within-country deal
sided_cross_border	Three categories: "BRICS acquirer", "BRICS target", "Within country"
Cross_industry	"1" for cross-industry deal, "0" for within-industry deal
ROA_targ_change	Individual ROA change of target
ROA_acq_change	Individual ROA change of acquirer
l_acq_size	Acquiring firm size; log (acquirer total assets before the deal)
Acq_NI_before	Acquirer net income two years before deal
Acq_NI_after	Acquirer net income two years after deal
Acq_TotAssets_before	Acquirer total assets two years before deal
Acq_TotAssets_after	Acquirer total assets two years after deal
Target_NI_before	Target net income two years before deal
Target_NI_after	Target net income two years after deal
Target_TotAssets_before	Target total assets two years before deal
Target_TotAssets_after	Target total assets two years after deal
Acq_ROA_before	Acquirer ROA two years before deal
Acq_ROA_after	Acquirer ROA two years after deal
Target_ROA_before	Target ROA two years before deal
Target_ROA_after	Target ROA two years after deal
WmeanROA_before	Asset-weighted ROA mean two years before deal
WmeanROA_after	Asset-weighted ROA mean two years after deal
year	Year of acquisition
Acquirer_nation	Country of acquiring firm
Target_nation	Country of target firm

Appendix 2. The results of pairwise correlation

Correlation coefficients	Deal_success	Profitability_dummy	Cross_border	Cross_industry	Deal_size	l_acq_size
Deal_success	1.0000					
Profitability_dummy	−0.1936	1.0000				
Cross_border	0.1217	0.1414	1.0000			
Cross_industry	0.2262	−0.0000	−0.0609	1.0000		
Deal_size	0.1495	0.1289	0.0291	0.1221	1.0000	
l_acq_size	0.0995	0.1970	0.0650	0.0865	0.2164	1.0000

Appendix 3. Shapiro-Wilk W test for normal data: Bid_premium

Variable	Observations	*W*	*V*	*z*	*Prob>z*
Bid_premium	16	0.81033	3.843	2.674	0.00375

Note: W, V, z represent statistic criteria used in Shapiro-Wilk test.

Appendix 4. T-test Bid_premium by Deal_success

Deal_success	Observations	Mean	Standard Error	Standard Deviation	[95% Confidence Interval]	
0	7	0.0231059	0.0628521	0.166291	−0.1306876	0.1768995
1	9	−0.0938197	0.0561984	0.1685952	−0.2234134	0.035774
combined	16	−0.0426647	0.0431636	0.1726543	−0.1346657	0.0493363
diff		0.1169256	0.0844683		−0.0642409	0.2980921
diff = mean(0) — mean(1)					$t = 1.3843$	
Ho: diff = 0					degrees of freedom = 14	
Ha: diff < 0			*Ha*: diff != 0			*Ha*: diff > 0
Pr(T < t) = 0.9060			*Pr(T > t)* = 0.1879			*Pr(T > t)* = 0.0940

Note: H_0 and H_a mean the null hypothesis and alternative hypotheses, respectfully.