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EFFECTS OF ACQUISITIONS ON FINANCIAL AND ESG PERFORMANCE: ANALYSIS OF SIEMENS MOBILITY'S FINANCIAL AND SUSTAINABILITY REPORTS

Abstract: A large number of studies have investigated the effects of acquisitions on the financial performance of the companies involved. Financial reporting plays a crucial role in understanding the effects of acquisitions on financial performance. An important aspect of financial reporting in acquisition processes is audit procedures that are carried out to confirm the reliability and truthfulness of financial reports. While research on the effects of acquisitions on financial performance is dominant in the academic literature, very little research has analysed the impact of acquisitions on companies' sustainability and ESG performance. Sustainable business practices are becoming increasingly important in today's corporate world. Companies realize that ESG (environment, social and governance) factors can have a significant impact on their long-term success and profitability. ESG factors are important in acquisition processes as companies face increasing scrutiny and pressure for transparency regarding environmental risk, social justice and corporate governance. The aim of the research in the paper is to look at the effects of acquisitions on the financial and ESG performance of companies. The research was conducted on the example of Siemens Mobility, which was created by the acquisition of the Serbian company Milanović Inženjering by the German company Siemens. Financial statements of the company in the years before and after the acquisition, reports on the sustainability of the company, as well as other relevant documents were analysed. The special contribution of the work is reflected in the comprehensive overview of the effects of acquisitions on ESG performance of companies.

Keywords: Key words. Acquisitions, financial performance, ESG performance, sustainability.

1. INTRODUCTION

Acquisitions represent global growth strategies by which the company stands to access new markets, take over key resources, and improve the performance of acquired companies. Analyzing at the effects of acquisition on performance is an important and current research area. The literature review shows that the largest number of studies investigates the effects of acquisition on financial performance (Callahan, 2004; Martynova et al., 2006; Guest et al., 2010, Cioli et al., 2020). In recent times, ESG issues have become increasingly important in acquisition transactions as companies face increasing scrutiny and pressure for transparency regarding climate risk, social justice and governance. Research on the effects of acquisitions on sustainability and ESG performance is very limited. Only a few papers have focused on the impact of an acquisition on ESG performance (Tampakoudis and Anagnostopoulou, 2020, Barros et al., 2022). In order to overcome this research gap, the aim of the paper is to look at the effects of the acquisition on the company's financial and ESG performance. According to the set research objective, the work includes the following research questions: 1) what is the effect of the acquisition on the financial performance of the company? and 2) what is the effect of the acquisition on the company's ESG performance? The research was conducted on the example of Siemens Mobility, which was created by the takeover of the Serbian company Milanović Inženjering by the German company Siemens. The financial reports of the company in the years before and after the acquisition, reports on the sustainability of the company, as well as other relevant documents and reports were analyzed.

The paper is structured as follows. First, a review of the literature on the effects of acquisitions on financial and ESG performance is provided. Second, the research methodology is described. Third, the results of the research and the discussion of the results are presented. At the end, concluding considerations are given; limitations and directions for future research are highlighted, as well as theoretical and practical implications of the work.

2. LITERATURE REVIEW

1.1. Acquisitions and financial performance

Acquisition performance measures can be divided into two broad groups: measures that have a financial domain (market performance measures and accounting performance measures) and measures that have a non-financial domain (innovation, customer satisfaction, ESG performance). Accounting performance measures are based on information contained in official financial reports and the calculation of various financial indicators in the period before and after the acquisition transaction. An essential prerequisite for analyzing financial indicators and making relevant conclusions about the success of the acquisition is the auditor's evaluation of the truthfulness of financial reports. The audit of financial statements is the procedure of checking and evaluating financial statements, as well as the data and methods used in the preparation of financial statements, on the basis of which an independent professional opinion is given on whether the financial statements in all materially significant aspects give a true and objective view of the financial situation and of the results of the operation of a legal entity in accordance with the relevant regulations for the preparation of financial statements (Act on Audit, Official Gazette 73/2019, 44/2021). Truthfulness implies that the financial statements have been prepared in accordance with International Accounting Standards and the Accounting Act (Official Gazette 73/2019 and 44/2021) and that they do not contain any material misstatements that may mislead users. Thanks to the performed audit process, the financial reports compiled by the management gain the necessary credibility and are suitable for making various business decisions by many users, such as planning the implementation of potential acquisitions, evaluating the success of the implemented acquisition, and the like.

In assessing the effects of acquisitions on financial performance, the following are most often used: net profit, operating profit, rate of return on assets (ROA - return on assets), rate of return on equity (ROE - return on equity), net profit rate (ROS - return on sale) (Callahan, 2004; Martynova et al., 2006; Guest et al., 2010, Cioli et al., 2020). Using accounting indicators to measure the success of acquisitions, Callahan (2004) comes to the conclusion that acquisitions contribute to increasing the rate of profitability. The results of the study showed that large company customers achieve a significant increase in the profit margin - ROS. Cioli et al. (2020) examine the effect of international acquisitions on the profitability of acquired companies and buyer companies, monitoring the following financial indicators: EBIT, EBITDA, ROA and ROIC (return on invested capital). The research results showed that profitability did not improve in the period three years after the acquisition. However, the authors emphasize the expectation that synergistic effects will be realized, but a longer period of three years is needed for their realization. In evaluating the effects of acquisitions, Viveiros (2018) uses accounting indicators: ROA, asset turnover, as the ratio of sales and assets (sales/assets) and EBIT Margin (gross profit margin, as the ratio of operating profit and income from sales - EBIT/sales). The assessment of the success of acquisitions was performed by comparing the value of the indicators three years after the takeover with the value of the indicators achieved in the year before the takeover (-1,+3). The results of the study showed that in the three-year period after the acquisitions, there was a decrease in the average value of the indicators.

1.1. Acquisitions and ESG performance

In measuring the acquisitions' performance, the use of indicators that have a financial domain prevails. Taking financial performance into account is based on the understanding that a certain acquisition is successful if it maximizes the return of the company in the form of an increase in the shares' value or an increase in profits. Non-financial performance measures, on the other hand, emphasize the importance of non-financial measures, such as innovation, customer satisfaction, ESG performance, which are significant for improving financial performance in the long term (Savović, 2018).

Recently, ESG performance has become increasingly important in M&A transactions. Companies that prioritize ESG performance will attract more investors and buyers. By proactively incorporating ESG practices into their operations and strategies, companies of all sizes and sectors can position themselves for long-term success. This not only benefits the companies themselves, but also contributes to a more sustainable and responsible global business environment (Costa, 2023). ESG considerations relate to environment - E (climate change and greenhouse gas emissions; energy efficiency; resource depletion, including water; hazardous waste; air, land and water pollution and waste management), social - S (human rights; working conditions; conflict; health and safety; employee relations; and equality and diversity) and governance - G (bribery and corruption; transparency; director payments, shareholder rights; independence, diversity and structure of the board of directors) (Burgess, et al., 2023). The ecological, social, management and economic spheres are interconnected so as to create one circular value chain of the offer. With such an integrated strategy, companies achieve a competitive advantage in the global market (Zhao et al., 2019). Hence, companies that

pay attention to the issue of sustainability can survive longer than companies that are only concerned with financial performance measures and can achieve greater market power (Cantele et al, 2020). Barros et al. (2022) analyze the impact of acquisitions on a company's sustainability performance by deconstructing ESG into its three components. The results of the study show that acquisitions increase a company's ESG. Analyzing the timing of this improvement, the authors conclude that this effect is not immediately visible - it was not verified in the year of the transaction, but in the following year.

2. RESEARCH METHODOLOGY

The research was conducted on the example of the company Milanović Inženjering that was taken over by the company Siemens in 2018. Table 1 shows basic information about the acquired company Milanović Inženjering.

Table 1: Basic information about the acquired company

Acquired company	Milanović Inženjering
Acquirer company	Siemens Mobility Holding B.V.
Year of the acquisition	2018
Type of the acquisition	International acquisition
The country of the origin of the acquirer company	Germany
Percentage of the assumed ownership	100%
Business activity	Metal machine
Sector	Manufacturing industry
Size of acquired company	Large legal entity
Legal form	Limited liability company
Full business name after acquisition	Siemens Mobility DOO Cerovac

Source: Agency for Business Registers

The performance of the acquired company was measured through accounting performance measures and the following indicators: net profit, EBITDA, EBITDA margin, net profit rate (ROS) and rate of return on assets (ROA). EBITDA is determined as operating profit increased by the amount of depreciation. EBITDA is profit before tax, interest and depreciation obtained as the difference between income and expenses, excluding tax, interest and depreciation. The EBITDA margin is determined as the ratio of the EBITDA indicator and the total operating revenue. The ROS rate was measured as the ratio of net profit to operating revenue, the ROA rate was measured as the ratio of net profit to the value of total assets. In order to identify the effects of the acquisition on financial performance, the change in the average value of profitability indicators was measured in two years before the acquisition, in relation to the period of four years after the acquisition. The data needed to calculate the financial indicators were taken from the official financial reports (balance sheet and income statement) of the analyzed company, available on the website of the Agency for Economic Registers of the Republic of Serbia). Based on data and information from the Company's Sustainable Development Report, as well as Annual Business Reports, relevant data and information were selected, based on which conclusions were drawn about ESG performance in the period after the acquisition.

3. RESULTS AND DISCUSSION

3.1. Financial performance

The financial statements, which the analyzed company compiles on September 30, were the subject of audit in all years of the mentioned period. In the years before the acquisition, the company Milanović Inženjering hired the audit firm Full revizija doo Surčin, which expressed a positive opinion on the disclosed financial statements in both audit reports. In the year of acquisition and the following two years, for the purpose of auditing financial statements, Siemens Mobility contracted services with the audit company Global Audit Services doo Belgrade, which expressed positive opinions on all evaluated financial statements. In the last two analyzed years, there has been a change in the engaged audit firm, and Siemens Mobility, as a company that operates on the global market, hired one of the 4 largest global audit firms, Ernst & Young Belgrade, for the audit of financial statements. Since it is a renowned auditing company of world renown, the positive opinions expressed on the financial reports of the last two years certainly instil a sufficient dose of confidence that the used financial data they contain can be a reliable basis for calculating the necessary indicators. Therefore, the financial reports present the objective and true financial situation and business outcomes in accordance with all accounting regulations and do not contain materially significant statements resulting from fraud or errors.

Table 2 presents the financial performance of Siemens Mobility (Milanović Inženjering) in the pre-acquisition and post-acquisition period (2016-2022). In the period before the acquisition, the company achieved a net profit and a positive EBITDA value, but these financial indicators have a decreasing trend. In the period after the acquisition, the company realizes a net loss. The causes of the net loss in the period after the acquisition are significant investments that the company undertook in this period (opening of the "Engineering" profit centre that required investments in employees, investment in staff training to work on the Avenio Bremen project). Investments in employee training, as well as a significant increase in the number of employees in the period after the acquisition caused a significant increase in employee costs. There was also an increase in intangible costs, due to the introduction of the new SAP information system, which required numerous IT and other consulting services. There was an increase in the costs of production services, since the services of external subcontractors were used due to the lack of own capacities. The causes of the loss are the increased fixed costs of renting office space and equipment for Assembly projects (tram assembly), for which the full degree of production capacity utilization is expected in the coming years (Annual Business Report Siemens Mobility d.o.o. Cerovac, 2021).

It can be seen that in the period before the acquisition, all profitability rates are significantly higher compared to the period after the acquisition. The trend of decreasing profitability indicators stops in the year after the acquisition, when these indicators start to improve, but are still at a lower level compared to the period before the acquisition. The expectation is that the trend of improvement will continue since the loss that has been realized is of a temporary nature, bearing in mind the fact that investment in the development and training of personnel represent the basis for business improvement in the future period of time, that is, they represent the driver of good future business performance of the company.

Table 2: Financial performance of the company Siemens Mobility (Milanović Inženjering) during the period 2016-2022 (in 000 RSD)

	2016	2017	Year of acquisition	2019	2020	2021	2022
Net profit	454.777	280.263	190.179	-521.953	-648.935	-1.112.691	-427.669
EBITDA	563.776	495.737	224.442	-334.465	-479.527	311.095	228.129
EBITDA margin	29.0%	17.9%	7.2%	-12.8%	-9.6%	2.3%	1.7%
ROS	23.4%	10.1%	6.1%	-20.0%	-12.9%	-8.2%	-3.2%
ROA	23.9%	12.2%	6.2%	-15,6%	-10.0%	-17.2%	-3.2%

Source: Authors' calculation based on data taken from official financial reports available on the website of the Agency for Economic Registers

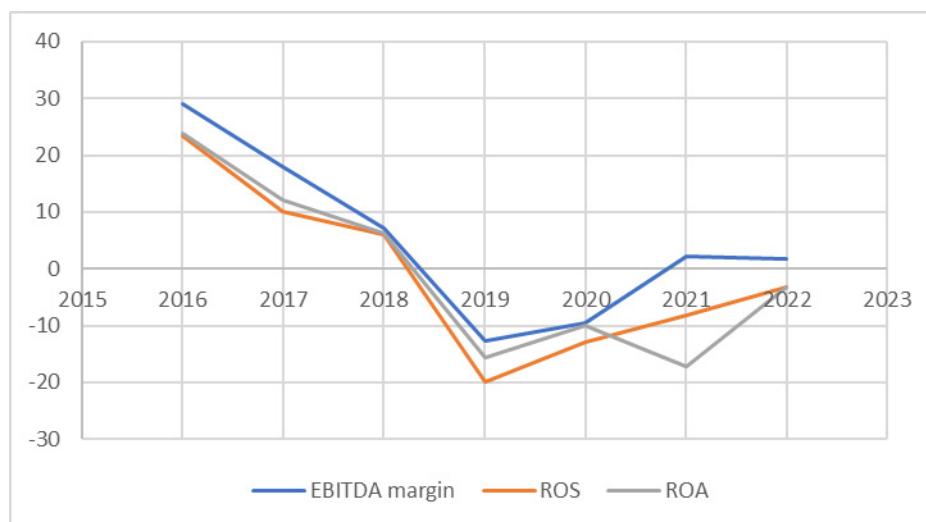


Figure 1. Profitability indicators of the company Siemens Mobility (Milanović Inženjering) during the period 2016-2022

Source: Authors' calculation based on data taken from official financial reports available on the website of the Agency for Economic Registers

Table 3: Comparative analysis of the financial indicators of the company Siemens Mobility (Milanović Inženjering) before and after international acquisition

	EBITDA margin	ROS	ROA
Average indicator value before acquisition	23,5%	16,8%	18.5 %
Average indicator value after acquisition	-4.6%	-11.1%	11.5%
Change	Decrease	Decrease	Decrease

Source: Authors' calculation based on data taken from official financial reports available on the website of the Agency for Economic Registers

If the average value of indicators is compared in the period before and after the acquisition (Table 3), it can be concluded that the average EBITDA margin decreased in the period after the acquisition, as well as the average rate of ROS, while there was a decrease in the average rate of ROA. The average rate of ROE remained at the same level in the period after the acquisition and is 45%.

3.2. ESG performance

Siemens management is responsible for preparing the Sustainability Report. The Sustainability Report is compiled in accordance with the Global Reporting Initiative (GRI) standards. These responsibilities of company management include selecting and applying appropriate sustainability reporting methods and making assumptions and judgments about individual sustainability disclosures that are reasonable in the circumstances. Moreover, management is responsible for such internal control as management deems necessary to enable the preparation of reports that should represent the state of affairs truthfully, without fraud (manipulation of the report) or error. The report on sustainable development was the subject of an audit by Ernst & Young GmbH, whose auditors pointed out that "Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Sustainability Report of Siemens Aktiengesellschaft for the period from October 1, 2022 to September 30, 2023 is not prepared, in all material respects, in accordance with the GRI criteria".

3.2.1. Environmental (E) indicator

Siemens Mobility, a division of Siemens, is engaged in engineering, tram assembly, construction and production of aluminium components and auxiliary tools for the rail vehicle industry. Siemens Mobility reduces CO₂ emissions through electrification, automation of railway infrastructure and improvement of energy efficiency. For rail operators, energy consumption is the largest contributor to operating costs and a significant contributor to emissions. The company can reduce energy consumption and use of materials through energy efficient design (Mobility solutions for a better tomorrow, 2023). The company pays special attention to the control of significant aspects of the environment recognized in production, where through the implementation of global company programs it achieves significant results in reducing generated waste (hazardous, non-hazardous), and by applying innovative recycling technologies, implementing prescribed treatment of all types of generated waste, replacing hazardous substances less dangerous and harmless in accordance with the requirements of the technological process and the requirements for product quality. During the business year 2022, a total of 1,061.03 t of industrial and packaging waste and -35.90 t of hazardous waste were generated and delivered to authorize operators for prescribed disposal and/or further treatment (Annual Business Report, 2022).

In accordance with the requirements of the national and local register and based on the Siemens Environmental Protection Report, EHS Standard "EHS Reporting", the company submitted all the necessary statistical reports in the field of environmental protection. Within the fiscal year 2022, in order to improve and protect the environment and energy efficiency, Siemens Mobility had the following investments: noise measurement in the environment, waste analysis, professional trainings, a canopy for the storage of al veneer, waste disposal means; in order to invest in the circular economy, a contract was concluded with the company Salesinar - Operator for the rental of wiping cloths within the production processes; replacement of ventilation filters; installation of led reflectors. The largest investment value is in the replacement of ventilation filters: 34,000.00 euro (Annual Business Report Siemens Mobility d.o.o. Cerovac, 2023).

3.2.2. Social (S) indicator

Siemens Mobility pays special attention to the professional and personal development of its employees. The company fosters a culture of internal communication. We are actively working on empowering all employees in the company and their commitment to developing their own careers. In the field of employee development, apart from formal, internal and external trainings, and in accordance with new trends, employees have at their disposal a large number of free online trainings that provide them with the opportunity to be informed about topics that are not strictly in the description of their job. Also, employees have the possibility of further training through various programs and trainings where they

exchange experiences and thereby contribute to the improvement of the entire organization. For the prevention of injuries at work, quick professional response in case of injuries at work, some other bad health conditions, as well as the education of employees in terms of prevention of various types of diseases, in cooperation with the Health Centre Kragujevac, the Clinic of the Health Centre was opened at the location of the factory in Sobovica.

3.2.3. Governance (G) indicator

At Siemens, sustainability is embedded in everything the company does, including their business purpose and strategy, corporate culture, processes and guidelines. The company strives to make sustainability everyone's responsibility. Compliance with known principles of corporate governance is the cornerstone of corporate governance based on sustainability. Siemens AG is governed by German corporate law, according to which a bicameral board structure has been established, consisting of an Executive Board (Managing Board) and a Supervisory Board (Supervisory Board). As the highest governing body, the Executive Board is responsible for serving the best interests of the company and for achieving sustainable growth of the company's value. Members of the Executive Board are responsible for the overall management of the company and decide on key issues of business policy and corporate strategy. The Supervisory Board supervises and advises the Executive Board in the management of the company's operations. The Supervisory Board meets regularly and discusses business development, planning, strategy and strategy implementation. In 2023, Siemens significantly facilitated the organization of sustainability throughout the company by introducing the Sustainability Executive Committee (EC SUS) and Heads of Sustainability in key businesses and business units. The Managing Board deals with sustainability-related risks and opportunities of strategic and company-wide importance and adopts appropriate measures. Chief Executive Officers (CEOs) are responsible for all sustainability topics in their area of responsibility. This includes responsibility for sustainable business, sustainability reporting, the Sustainability Risk Due Diligence Process, and other related responsibilities. The CEO of Siemens Mobility is supported by his Head of Sustainability Executive Committee to achieve his sustainability mandate. The current compensation system for the members of the Executive Board (Managing Board of Siemens AG) is effective from fiscal year 2020. It incorporates long-term performance incentives based on ESG criteria. The performance of the Executive Board (Managing Board's performance) is evaluated in relation to the internal ESG/Sustainability index. Goals include CO₂ emissions, hours of digital learning and the Net Promoter Score (NPS) for measuring customer satisfaction. Additional sustainability matters are also defined as individual targets for short-term variable compensation (bonuses).

4. CONCLUSION

The issue of the companies' sustainability is becoming inevitable in modern academic and professional circles. This is especially considering the characteristics of the modern business environment, as extremely complex, heterogeneous, dynamic, uncertain and unpredictable. For the purpose of not only growth and development, but also long-term survival, companies must take into account, not only economic, but also other non-economic, that is environmental, social and corporate management performance. In that sense, the so-called ESG performance is becoming more and more prominent in the evaluation of the company's success, both of the acquirer and acquired company. ESG performance is gaining more and more importance in the pre-integration phase, during and after the integration of companies and undoubtedly affects the market value of all actors in the integration process. An important aspect of financial and non-financial reporting in acquisition processes is the audit procedures that are carried out to confirm the reliability and truthfulness of financial and sustainability reports.

ESG factors are important in acquisition processes as companies face increasing scrutiny and pressure for transparency regarding environmental risk, social justice and corporate governance. The research results show that, immediately after the integration of the observed company, the financial performance is not at an enviable level due to high fixed costs and costs of production services, but positive effects of integration on financial performance are expected in the longer term. The company, which is the subject of the analysis, pays significant attention to all aspects of sustainability and invests a lot of resources in the preservation and protection of the environment, solving social issues dedicated to the professional and personal development of employees, as well as employee education in terms of prevention of various types of diseases. The principles of corporate governance are also based on the principles of sustainability. However, the given research results refer to one company, which is a limitation of this research. In the future, the subject of research can be a larger sample of companies from one or more sectors of the economy.

The research results undoubtedly have a special theoretical and practical contribution. In a theoretical sense, the special contribution of the work is reflected in a comprehensive overview of the effects of acquisitions, not only on the financial, but also on the ESG performance of companies. This is of particular importance, bearing in mind the fact that the literature mainly measures the effects of acquisitions on financial performance. In a practical sense, the research results provide useful guidelines to all actors in the integration process for making valid conclusions and decisions both

in the phase before, during and after integration, which will ultimately lead to maximizing the market value of the integrated company.

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