

Relevance of Sectoral Clustering in Corporate Debt Policy

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The processing and transformation of natural resources into completed and semi-finished products is the primary function of industry in each nation's economy. There is no denying the significance of industry and sectoral classification of the economy, but the slow development and extension of one industry could have resulted in the advancement of other sectors that are now a part of contemporary communities.

Keywords: financial performance ; indebtedness ; debt indicators ; sectoral analysis

1. Introduction

Firms in dynamically evolving market sectors attempt to react to competition or established customer requirements by reacting to new impulses and environmental effects. Currently, when the economies of different countries around the world are experiencing adverse developments, mostly due to the COVID-19 pandemic, the war in Ukraine, or the energy crisis, overcoming a difficult period of business management is crucial. Along with measuring corporate performance (e.g., in terms of sustainable growth rate—[Bagh et al. 2023](#), of sustainable development—[Crişan-Mitra et al. 2016](#); [Crişan-Mitra et al. 2020](#), or of debt level—[Gajdosikova et al. 2023](#)), this process also includes assessing the achieved results from the point of view of financial health, evaluating the methods used to measure performance, and fulfilling long-term corporate objectives for the future ([Valaskova and Nagy 2023](#)). Using these methods and procedures, firms are able to obtain and subsequently evaluate data that reflect not only the dynamics of corporate development but also quantify the impact of the economic crisis on changes in the structure of financial indicators over the years and formulate proposals and recommendations for the future ([Stratone 2023](#)). The corporate financial situation is constantly influenced by many factors that must be identified for the firm to maintain its long-term development, particularly considering integrating cutting-edge technologies such as artificial-blockchain- and Internet of Things-based fintech ([Andronie et al. 2023](#); [Barbu et al. 2021](#); [Lăzăroiu et al. 2023](#)). The assessment of the financial situation of the enterprise helps in identifying problems and critical circumstances in time, thus preventing bankruptcy. If a firm aims to be successful in the market and compete in a rapidly changing environment, it should consider not only an adequate financial nation but also subsequent financial development ([Zhang and Ding 2023](#)). In general, a financially healthy company ([Kliestik et al. 2020b](#)) fulfills two requirements: (i) it is liquid over the long term (i.e., it can pay its obligations on time both now and in the future as long-term liquidity is significantly influenced by the ratio of equity and debt financing in the overall capital structure of the company ([Santos et al. 2022](#)); and (ii) it is profitable (i.e., it can generate enough profit to cover its costs through its business activities ([Ogunode et al. 2022](#))). The ratio between equity and debt, represented by the corporate financial structure ([Lăzăroiu et al. 2020b](#); [Nagy et al. 2023](#); [Valaskova et al. 2023](#)), is an issue that is frequently discussed in relation to financial analysis. Decisions regarding the development of the corporate capital structure are strategic ones, the consequences of which manifest over several years. Therefore, it is necessary to take several factors into account when developing it. Numerous studies have been conducted regarding the impact of particular determinants on a corporate capital structure ([Brendea et al. 2022](#); [Sardo et al. 2022](#); [Zakaria and Salawa 2023](#)). However, the industry in which the enterprise operates has an impact on the capital structure. Enterprises operating in the same sector have certain similar characteristics, such as the products they sell, how their production costs are structured, the technologies they employ ([Valaskova et al. 2022](#); [Nagy and Lazaroiu 2022](#)), and their levels of profitability, while these tendencies are also manifested in the area of corporate capital structure. According to [Ibrahim and Lau \(2019\)](#), each industry has a distinct average total debt ratio. Since [Schwartz and Aronson \(1967\)](#) first outlined the relationship between industry affiliation and the capital structures of corporations in the United States, more than 50 years have passed. The industry determinant is nevertheless frequently taken into account in empirical capital structure research. From an economic standpoint, Slovakia stands as a compelling example of a nation that has undergone remarkable transformation and development. Nestled in the heart of Europe, the economy of Slovakia has evolved significantly since gaining independence in 1993. The country transitioned from a centrally planned economy to a market-oriented system, embracing reforms that propelled it into the European Union in

2004. One of the key drivers of the economic success of Slovakia has been its robust manufacturing sector, particularly automotive production. The presence of major international car manufacturers has not only contributed substantially to exports but has also spurred technological advancements and innovation within the country. Additionally, its strategic location and well-developed infrastructure have made it an attractive destination for foreign direct investment. Over the years, Slovakia has experienced steady economic growth, with GDP per capita gradually converging toward the European Union average. However, like many nations, it has faced challenges, including the need for continued economic diversification, addressing regional disparities, and adapting to global economic uncertainties. The economic landscape of Slovakia witnessed significant fluctuations and transformations from 2018 to 2021, reflecting a complex interplay of domestic and global factors. During this period, Slovakia navigated through challenges and opportunities that influenced its overall economic performance. As Slovakia continues to navigate the intricacies of the international economic landscape, its resilience and commitment to innovation position it as a noteworthy player in the European economic framework. Understanding the nuances of Slovakia's economic journey provides valuable insights into the dynamics shaping its future growth and prosperity. Generally, the importance of one-country studies has arisen due to different changes in individual countries caused by divergent effects of the COVID-19 pandemic and other macroeconomic changes based on the industrial orientation of national economies.

2. The Relevance of Sectoral Clustering in Corporate Debt Policy

Firms have experienced certain changes over the past several decades as a result of the constantly changing circumstances in the market. This development was mainly caused by the advancement in science and research ([Peng and Tao 2022](#)), international integration ([Onegina et al. 2022](#)), and the growth in competitiveness ([Marousek and Gavurova 2022](#); [Adjei and Grega 2023](#); [Privara 2022](#)). For enterprises to maintain or improve their position in a specific business sector ([Durana et al. 2022](#); [Borowiecki et al. 2022](#)), continuous evaluation and improvement regarding achieved business performance are necessary. The most important aspect is the corporate performance evaluation, which is used as the primary measure. The performance of the firm can be examined from the perspectives of marketing ([Michulek et al. 2023](#); [Michulek and Krizanova 2023](#)), human resources ([Zhang 2022](#)), customer perspective ([Kral and Janoskova 2023](#); [Nahalkova Tesarova and Krizanova 2023](#)), and management ([Mazzucchelli et al. 2022](#)). The financial performance analysis can provide the most detailed information about a specific corporate performance ([Roy and Patro 2021](#); [Galant and Cvek 2021](#)), which occupies an invaluable position in the evaluation of the selected business entity ([Oliver 2022](#)).

The term performance is often used in everyday life in several areas, including sports and international finance ([Kang and Kim 2023](#)). Performance generally refers to how a particular investigated subject carries out an activity compared to the reference manner of completing the given activity. In the long term, however, in the current economic environment of the firm, it is not enough to rely on the currently achieved performance ([Boulhaga et al. 2023](#)), but it is necessary to focus on its continuous increase ([Dana et al. 2021](#)). [Chen et al. \(2023\)](#) characterize the measurement of corporate performance as a process whose key role is to support the development of the business into the future using the analysis and evaluation of established methods and procedures. Several definitions of performance agree on the success and achievement of established objectives. Performance can be broadly defined as a characteristic that helps in realizing the corporate future vision ([Madaleno and Vieira 2020](#)) through continuous measurement ([Wegar et al. 2021](#)) and comparison of past results with established criteria and predictions for the future ([Barbuta-Misu and Madaleno 2020](#)). The achieved results of individual financial analysis indicators ([Li et al. 2021](#)), industry statistics ([Xu and Li 2019](#)), or the effectiveness of the use of corporate production factors ([Zhang and Aumeboonsuke 2022](#)) are a few examples of these criteria in the area of the financial performance of enterprises. Business performance, which is additionally referred to as the operationalized level of business competitiveness, is the main subject of evaluation in several business studies, focusing on the success or productivity of corporate financial performance ([Kristof and Virag 2022](#)). Studies based on financial data and their analysis to ascertain the financial performance of the firm form the largest group of corporate performance evaluations. Through methods and techniques of financial analysis, financial performance describes the achieved corporate financial health ([Durica et al. 2023](#); [Kaczmarek et al. 2021](#)). According to [Hedija and Nemec \(2021\)](#), [Jin et al. \(2022\)](#), and [Kayani et al. \(2023\)](#), data collected through financial performance evaluations have significant explanatory power. Many authors employ intricately constructed systems of indicators or constructed models that are separated into several parts to evaluate the performance of firms (e.g., in terms of labor productivity growth—[Lăzăroiu and Rogalska 2023](#), of deliberate managerial strategy—[Vătămănescu et al. 2020](#), and of organizational achievements—[Vătămănescu et al. 2023](#)) with the intention of introducing a more detailed comprehension of the achieved corporate performance.

Financial performance indicators generally focus on the data obtained from the profit and loss statement and balance sheet of the firm and are used to analyze not only revenues and expenses ([Magni and Marchioni 2020](#)) but also cash flow ([Handoko et al. 2021](#)). Financial indicators can be used to assess corporate activity ([Zeynalli 2023](#)), liquidity ([Batrancea](#)

2021), indebtedness (Guo and Zhao 2019), and overall performance (Stashchuk et al. 2021). Maximizing profit (Nyantakyi et al. 2023) and increasing the market value of the firm (Kluiters et al. 2023) are two fundamental objectives. In order to develop and make investments, a firm has to produce a profit (Jyoti and Khanna 2021). To monitor the achievement of this goal, return on equity (Wang et al. 2019) is often used, which is a crucial indicator of profitability because the investor needs to know the likely return on any investment made (Pham and Dao 2022) and return on sales, which is determined by operating profit as a percentage of sales. Goel (2021) states that a firm can be profitable but at the same time it can have cash flow problems. The ability of the firm to meet its short-term financial obligations is measured by liquidity indicators (Zhan et al. 2022). One of the best-known indicators of liquidity is current liquidity, which measures the ability of an enterprise to meet its short-term obligations due within one year with current assets that can be converted into cash (Vukovic et al. 2022). Although the monitoring of this financial indicator differs based on the sector in which the company operates, a value greater than 1 is recommended (Scalzer et al. 2019). The firm may have liquidity difficulties if this indicator displays a gradually decreasing trend or a lower value compared to the industry average. On the contrary, a high value of the ratio indicates that excess cash is not used efficiently (Farahani et al. 2020). It is the liquidity of the company that is a prerequisite for its financial stability (Casu et al. 2019), while, if it is disturbed, it is possible to point to the insolvency of the firm (Pulawska 2021), which is closely related to the indebtedness (Olujobi 2021). The use of borrowed funds by a firm for financing its business activities and assets is known as corporate indebtedness (Baines and Hager 2021). A high debt ratio indicates that the business relies heavily on debt to finance its long-term needs (Ahmed and Afza 2019). Many companies choose debt financing since they are unable to finance themselves entirely with their own resources in the present economic situation. Indicators of indebtedness reveal how extensively foreign resources are used (Benlemlih and Cai 2020), help in an in-depth evaluation (Jacobs et al. 2020), and analyze and plan adjustments to corporate financing sources (Amare 2021). Even though there are numerous indicators of indebtedness, total indebtedness is regarded as a complex indicator that captures the structure of financial resources (Jencova et al. 2021). Due to the wide variations among sectors, there is no set recommendation for what proportion of the requirements of a business should be financed by debt. When a company uses debt financing, its earnings and shareholder returns (Kliestik et al. 2020a; Santos-Jaén et al. 2023) might increase. Since the interest on the debt must be repaid even if the company does not make a profit, this type of financing represents a higher risk for the firm (Hudakova et al. 2023). Financial decision making requires particular attention to the optimal capital structure setting since it is a relatively complicated issue (Cerkovskis et al. 2022). The ratio of equity to debt funding is largely influenced by the sector in which the firm works (Kucera et al. 2021), the structure of the assets of the company (Srhoj 2022), and the interest rate charged by banks (Liao 2020). The profitability of equity capital is frequently increased by employing debt as long as the interest rate is less than the profit of the enterprise itself (Jedrzejczak-Gas 2013). Financial leverage may be categorized as debt-related actions. The more debt the firm generates, the higher the financial leverage indicator (Iqbal et al. 2022). The financial leverage indicator is predicated on the idea that using debt to finance corporate operations increases the relative profitability of equity (Toemoeri et al. 2021) and also assumes that debt financing is less expensive than equity financing (Hong et al. 2021). At the same time, however, the use of foreign capital also increases the riskiness of the firm (Kljucnikov et al. 2022).

Numerous determinants, such as prioritizing the financing of business operations basically through debt, have an impact on corporate indebtedness and affect the composition of corporate capital in different ways (Gajdosikova et al. 2023). The size of the firm greatly influences the level of corporate debt. As evidenced by their lower level of debt, smaller enterprises have a lower percentage of foreign resources than larger ones (Rahim et al. 2019). The legal form of the company is frequently mentioned (e.g., Dvoulety and Blazkova 2021; Allaya et al. 2022) as a significant factor affecting the choice of financing form. Even Farhangdoust et al. (2020) points out significant differences in the indebtedness of firms as a result of the impact of their selected legal form. Corporate indebtedness is significantly influenced by the level and volatility of corporate profits (Fischer and Jensen 2019; Kliestik et al. 2022), the costs of financial difficulties (Alvarez-Botas and Gonzalez 2021), the impact of inflation (Jaworski and Czerwonka 2021), the effort to maintain ownership control of the firm (Martins et al. 2020), dividend policy (Sierpinska 2022), requirements for the financial flexibility of the firm (Jameson et al. 2021), and the method and intensity of taxation (Sobiech et al. 2021), while earnings management may also have implications for corporate debt (Valaskova and Gajdosikova 2022). According to Ramelli and Wagner (2020), the market situation has significant consequences for the financial decision making of the business entity. The affiliation of the firm to the industry is another factor that Chen et al. (2022) identify as influencing the level of corporate indebtedness. Industry classification has a significant impact on the average corporate debt level ratio (Harris and Raviv 1991). Furthermore, Bradley et al. (1984) reveal that industry is a significant determinant of leverage and that there is greater diversity across sectors than within industries in corporate leverage ratios. The result indicates the consistency within an industry and the variability between industries. According to Gaud et al. (2005), small- and medium-sized enterprises are impacted by the industry in which they operate. Generally, small- and medium-sized enterprises within a particular sector additionally face identical present circumstances and frequently implement a similar financing pattern. Furthermore, Hall et al. (2004)

presented evidence that agency costs may fluctuate throughout firms and provided inter-industry differences in the debt of these enterprises. According to [La Rocca et al. \(2011\)](#), industry-specific characteristics have an impact on the debt ratio by affecting the significance of business risk, tangible assets, and growth opportunities. Therefore, industry-specific variables may influence the capital structure of small- and medium-sized enterprises. Most research papers on the factors that determine the capital structure of a firm have investigated the impact of the industry using dummy variables or median industry variables (e.g., [De Jong et al. 2008](#); [Degryse et al. 2012](#)). Nowadays, the impact of industry on corporate capital structure has been examined by many authors. [Kayo and Kimura \(2011\)](#) and [Smith et al. \(2015\)](#) used the three industry-specific determinants. [La Rocca et al. \(2011\)](#) concluded that firms in a developing sector frequently require additional external financing to cover their investment potential since internal financing may not be sufficient to cover all future opportunities. [Danso et al. \(2021\)](#) suggested that the characteristics of the firms and the nations where their shares are listed determine a significant amount of the predictive power of industry affiliation on firm capital structure. However, industry continues to contribute significantly to the difference in capital structure ratios, even after considering both firm and country impacts.

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