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NON-FINANCIAL REPORTING OF INDUSTRIAL CORPORATIONS – A CZECH CASE STUDY

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Abstract

Scientific research and studies from recent years point to the growing interest of large multinational corporations in publishing reports that inform the public not only about their performance, but also about their behavior in terms of social responsibility and long-term sustainability. These are not only effects in the context of their success, but also the negative impacts of their environmental, social and administrative activities. Although corporate responsibility reporting integrating financial and non-financial information is becoming a standard practice, these approaches have not yet been investigated or published in the Czech region. Therefore, the aim of the research was to determine how the new quality of reporting is perceived by Czech industrial corporations. Data for empirical research were excerpted from reports published in 2018. To verify the generally perceived assumption of a positive correlation between the size of corporations and the quality of their reports, respectively between reporting quality and corporate performance, eight hypotheses have been formulated. The Chi-Square independence test was used to confirm or refute the hypotheses. The tests confirmed a significant dependence of reporting quality on the size of the corporation. A positive correlation was also found between quality of report and performance, but the expected negative correlation between indebtedness could not be demonstrated.

Keywords: non-financial information, corporate social responsibility, corporate annual report, environmental social and governance reporting, global reporting

INTRODUCTION

The processes of conscious development that can transform the present form of civilization are closely linked to the implementation of ethics and ethical behavior in economic systems. Reflections on the future consequences of today's economic activities are directly related to ethics as a key element of innovative economic systems. In economic theory taking into account the transition to a global economic system, competition and struggle will be replaced by cooperation and co-creation. The world-renowned physicist Professor Fritjof Capra (1988) considers the fact that human activity takes place within society and society is part of the ecosystem as one of the fundamental shortcomings of contemporary economics. Ignoring the fact that the economy is a part of higher systems such as nature, the ecosystem, our planet or the universe is seen by the British economist and statistician Ernst E. Schumacher (1993) as the main cause of the global crisis of contemporary civilization.

Professor Josef Šmajs (2012) criticizes the linking of economic growth only with the widespread notion of increasing people's welfare and disregarding not only from how and at the expense of what prosperity is attained, but also that these goods are not distributed fairly within the relevant country or planet. This thinking does not take into account that growth involves the expansion of cities, roads and consumer technology, and that it must be at the expense of the loss of biologically active land, wildlife and vegetation, i.e. at the expense of eclipsing the native nature, with which the human organism, despite technical and economic developments, remains homogeneous. The problem of economic growth would perhaps be partially cleared by setting up an "Earth account" and paying nature for so-called "resources", i.e. by entering into a sales, recycling and other services agreement with nature as a global "business entity".

Thanks to modern information technology and technical progress, the growth rate is accelerating and does not take into account the disadvantages of unbalanced economic growth, including impacts on human welfare and the environment. There is a need for the long-term sustainability of development, which is defined in different ways, but most commonly referred to as the Brundtland Report (WCED, 1983): "Sustainable development is a development that meets today's needs without compromising the ability of future generations to meet their own needs". Sustainable development goals (SDGs) are a roadmap for a better and more sustainable future for all and were issued by the UN General Assembly in 2015 with a deadline of 2030 and are part of UN Resolution 70/1, Agenda 2030 (UN, 2015). There is a change in the view of securing social development, which is currently focused mainly on financial reporting in the form of data on the characteristics and organization of business corporations. The origin of this reporting is put into the period of the industrial revolution and the emergence of a new type of business that allowed the concentration of capital of a large number of investors. The traditional source of information was accounting, which provided information on the financial situation and performance of business corporations. Regulation was taken care of by the government by issuing laws, decrees, standards, or other legislative standards. The United Kingdom publishes the Companies Act (1844), which requires companies to present their balance sheets to shareholders and enter them in the register. Principles and fundamentals of financial reporting have been entrusted to private, professional, non-profit organizations. In 1934 it was the Financial Accounting Standards Board (FASB), which issued the US GAAP and on the international level, the International Accounting Standards Board (IASB), which started issuing IAS in 1971, later called IFRS. The scope, content and form of reporting have evolved in response to the growing needs of users, especially owners, potential investors, employees, the state, the region, business partners, creditors and others.

Financial statements have become the main data source for methods and models developed to assess business success and comparing business corporations and public law institutions over time and space. In practice, the method of financial analysis is applied, which is based on financial indicators (absolute and ratio) or their systems containing hierarchically arranged or purpose-selected indicators based on comparative-analytical or mathematical-statistical models (Drake and Fabozzi, 2012). Financial theory has developed and develops so-called creditworthy (diagnostic) models, which are able to evaluate the financial situation (financial health) of a company, or as the case may be its position (when compared in a space) and bankruptcy (predictive) models, which represent early warning systems capable of predicting its crisis development and indicating potential threats to the company's financial health have proven themselves in practice (Sedláček, 1999). Quantifiable (hard, tangible) indicators, measurable by a cardinal scale, are also part of a comprehensive rating (or scoring) of larger territorial units (cities, regions, states or their groupings). In the financial analysis, non-financial indicators form the so-called fundamental part, which evaluate the company's relationships to the external and internal environment. At the end of the last century, these were factors expressing the success and benefits of companies. The most widely used models are Balanced scorecard by Kaplan and Norton (1996), Porter's model of Five Competitive Forces (Porter, 2008), Model 7S by the authors Peters and Waterman (2004), PEST or SWOT analysis (Aguilar, 1967). The importance of non-financial (soft) data in the evaluation of business corporations was confirmed by a multifactor analysis carried out in Czech industrial corporations by the Faculty of Economics and Administration of Masaryk University, which resulted in designing models for evaluating not only their financial success but also their beneficial effect (Blažek, 2001). A successful business corporation must also be beneficial for its stakeholders. At the same time, economic growth in the form of an increase in the capital of business corporation owners is accompanied by environmental and social impacts. Information users want to know how corporations are doing in the area of Corporate Social Responsibility (CSR)[1] and what the economic, environmental and social impacts of their daily activities are. Social responsibility and the long-term sustainability of development are the essence of non-financial information (Freeman, 2010). Economist Milton Friedman described corporate social responsibility as notable for its analytical freedom and lack of rigor (Waddock and Bodwell, 2002). According

1 CSR is defined as a commitment by corporations to act in accordance with the values and goals of our society. CSR logically also applies to other corporate activities that may affect customers and the outside world.

to Marrewijk (2003), the need for non-financial information arises from the balance of the principle of self-determination of the community principle: entities are part of a larger whole and should therefore adapt to changes in their environment and respond to remedies by their stakeholders.

Ioannou and Serafeim (2017) reported that the lack of commitment of companies with the community and the lack of transparency of their impact on society has created the idea of mandatory corporate social responsibility (CSR). The transition from voluntary corporate social responsibility to compulsory has been particularly notable for large companies. Structured, formalized and codified approaches are progressively applied from the informal publication of information. The research of Choi and Wang confirms that meeting stakeholder needs has a positive impact on company performance. Companies develop and implement stakeholder engagement procedures, implement methods for measuring and long-term reporting of non-financial information. Kuldová (2012) or Arvidsson (2011) point to the growing importance of social and environmental reporting issues, which are referred to as Social Responsibility or Sustainability Reporting.

Some authors refer to active environmental practices as intangible managerial innovation, routinely requiring organizational commitments to improve the natural environment that are not required by law (Darnall, Henriques and Sadorsky, 2010). Empirical studies published by Gonzalez-Ramos (2018) suggest that proactive companies are able to develop better relationships with stakeholders and are more involved in CSR than those characterized as followers or innovators. Here are two main reasons that justify these results: 1) CSR practices assist companies with retaining highly qualified employees, helping to maintain their leadership position; and 2) technology leaders tend to be more involved in CSR as a way of collecting valuable knowledge that can be useful in exploring new opportunities through innovation, allowing the business to respond more flexibly to market changes and the needs of new stakeholders as well as to change their preferences. In addition, CSR initiatives will contribute to the development of high-value intangible assets, such as corporate reputation, which in turn will boost the company's financial performance.

According to some scientific studies, different and often contradictory research results are caused by a vague definition of related aspects of CSR, such as what corporate social practice is and what standards are used to measure corporate environmental performance, employee rights and social status (Turker, 2008; Blombäck and Wigren, 2009). According to Jenkins (2006), Boutin-Dufrense and Savaria (2004) and Sturdivant and Ginter (1997), research should take greater account of the differences between sectors, industries, sizes and their impact on corporate social responsibility activities in order to achieve useful and meaningful results.

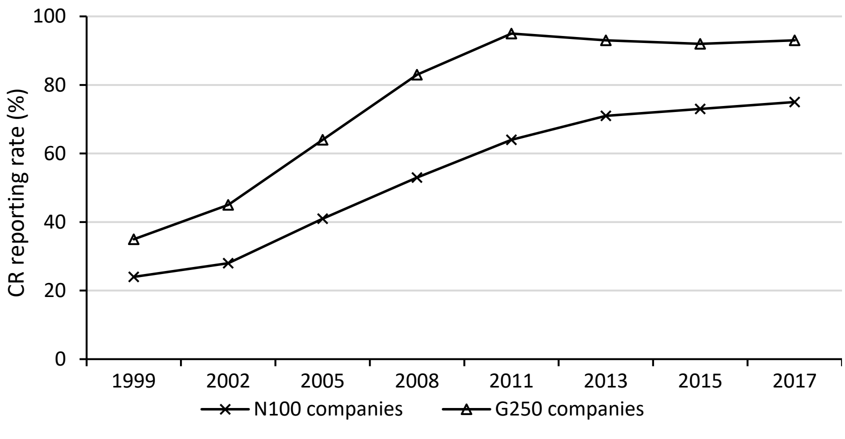
Some authors refer to active environmental practices as intangible managerial innovation, routinely requiring organizational commitments to improve the natural environment that are not required by law. Corporate disclosure of various aspects of their social and environmental behavior exceeds legal requirements, according to Wolf (2014) and minimizes damage to corporations and companies. Corporations that do not add environmental thinking to their strategy risk losing secondary opportunities in markets that are increasingly shaped by environmental factors. Stakeholder theory suggests that the better a corporation manages its relationship with different stakeholders, the better its financial performance. In an environmental context, stakeholders can put pressure on adopting proactive environmental practices that improve their environmental performance. This improved performance can increase the organization's internal efficiency and external legitimacy, which in turn can lead to competitive advantage and wealth. The research of Hull and Rothenberg (2008) or Wang and Choi (2010) confirms that meeting stakeholder needs has a positive impact on company performance. Companies develop and implement stakeholder engagement procedures, implement methods for measuring and long-term reporting of non-financial information. Modern information systems that integrate financial and non-financial development level indicators are suitable for assessing individual states and their groupings, regions and corporations are referred to as Environmental, Social and Governance Reporting (ESG) (Hayat and Orsagh (2015) or Global Reporting Initiative (GRI) (GRI Standards, 2018).

Originally general reporting frameworks created by expert groups within national and multinational organizations (UNESCO, OECD, IOSCO, WBCSD, EU and others) as non-binding are currently being made mandatory. In the Czech Republic, this obligation was introduced in 2004 by Act No. 437/2003, which amends Act No. 563/1991 Coll., on Accounting, following a European Commission (EC) directive, for companies that are issuers of securities registered on a regulated securities market in the Member States of the European Union. The amendment to Accounting Act No. 462/2016 requires disclosure and verification of non-financial information as of 1 January 2017 extending the disclosure obligation to large entities, specifying their structure and form of publication in an annual or separate report. As reported by Kašparová and Škapa (2008), or later Malíková *et al.* (2018) many companies began to report environmental and social information, but the content and form varied greatly.

As it emerged from a survey carried out by an audit and consulting company EY in 2016, non-financial information cannot be considered an ancillary item in the annual report beyond the financial statements, but becomes an essential part of investor decision-making processes (EY's Report, 2016). There was a dramatic increase in the number of respondents from 35% to almost 60% between 2013 and 2014, who consider CSR or sustainability reports to be important when making investment decisions. In the context of numerous violations of corporate ethics or related scandals, the main challenge is to provide transparent and value-oriented reporting that includes non-financial information and will be designed to stimulate stakeholder confidence. Similarly, Deloitte (2018) found that businesses are no longer assessed solely on the basis of traditional metrics such as financial performance or the quality of their products or services. Today, businesses are increasingly being judged by their relationships with workers, customers and communities, as well as their impact on society as a whole transforming from business to social enterprises. Social capital is in many ways a newfound value alongside the value of financial and physical capital. Successful businesses today need to perceive external trends, perspectives and requirements by maintaining positive relationships not only with customers and employees, but also with local communities, regulators, and many other stakeholders. This shift reflects the growing importance of social capital in shaping the purpose of a business, leading stakeholders and influencing its ultimate success or failure. According to the survey, 18% of companies consider the CSR program a key strategic priority, 26% rank the program in their priorities and 56% do not intend to implement it.

A detailed look at the global trends in CR reporting is provided by survey by KPMG (2017), which was performed at the TOP 100 companies by revenue (N100) on the global sample of 4,900 companies and 250 of the world's largest Fortune 500 companies (G250). Research has confirmed the growing growth of corporate responsibility reporting and its inclusion in annual reports is a standard practice. As shown in Fig. 1, more than three-quarters of the world's 250 largest companies now report at least some non-financial information in their annual financial reports. Many countries have adopted the concept of integrated financial and non-financial reporting and have issued regulations and stock exchange guidelines, leading to a 73% increase in CR reporting by large companies. France (93% of the 100 largest companies), Great Britain (90%), Norway (86%) and Denmark (82%) were the best performing non-financial reporting countries in Europe.

In the Czech Republic, corporations are reluctant to publish any information about their business. The results of a survey conducted by Bisnode (2019) showed that a large number of business corporations do not comply with the disclosure obligations and do not publish the prescribed financial statements at all. As shown in Tab. I, 82.13% of corporations of which 79.22% are joint stock companies failed to disclose in 2018. Non-financial indicators, such as the environmental impact of business, respect for human rights, philanthropy or anti-corruption rules and transparency, were reported by only 43%



1: *The rate of corporate responsibility reporting among the N100 and G250*

I: *Share of corporations that did not comply with the disclosure obligation between 2014–2018*

Type of corporations	2014	2015	2016	2017	2018
Joint-stock company	39.69%	41.49%	43.64%	49.45%	79.22%
Limited liability company	55.39%	56.54%	58.25%	61.99%	82.30%
Total	54.42%	55.65%	57.41%	61.30%	82.13%

Source: Bisnode 2019 (data on 2019. 08. 06) of the 100 largest corporations. When transposing the Directive, the Czech Republic did not tighten up requirements in the area of non-financial reporting, nor did it extend the obligation outside the circle of public interest companies. This left companies with room for voluntary reporting, but most of them still do not use it.

Although the Act requiring non-financial reporting came into force on 1 January 2017, there is still no information on the status of non-financial reporting in the Czech region. In our research, which is the subject of this paper, we have therefore focused on the quality of the referenced information with regard to meeting the needs of users in the economic, environmental, social and governmental administration areas. We are looking for an answer to the research question of how the new quality of reporting is perceived by Czech manufacturing industry corporations. The basis for the empirical research is data excerpted from the financial statements and annual reports issued in 2018. The aim is to find out whether the deviations in the reporting of the analyzed corporations are significant for their users. It is a logical continuation of the research in which we analyzed the information behavior of corporations traded on the Czech capital market in the period 2013–2017.

MATERIALS AND METHODS

The methodology of the research is based on data, which in the end enable assessing and evaluating the relationship of business corporations in the Czech region to non-financial reporting. In particular, a positive relationship can be expected, as social, environmental and administrative information, in addition to economic information in the eyes of stakeholders, strengthens the trust, reputation and usefulness of the corporation in the long run and ultimately its success. Data sources are reports of business corporations, which are legal entities with a registered office in the Czech Republic, foreign legal entities and units, which are an accounting entity or are obliged to keep accounts, if they do business or operate in the Czech Republic according to special regulations. Out of a total of 193,025 industrial corporations active in the Czech region in 2018, joint-stock companies from the manufacturing industry were included in the research sample (CSO 2019). According to the CZ NACE (2019) statistical classification, the following economic activities were involved:

20 – Manufacture of chemicals and chemical products;
22 – Manufacture of rubber and plastic products;
24 – Manufacture of basic metals, metallurgical processing of metals;
25 – Manufacture of metal constructions, fabricated metal products;
28 – Manufacture of machinery and equipment;
29 – Manufacture of motor vehicles;

From the procedural point of view, the research is divided into the following parts:

1. Sizing – a sample that should include at least the number of subjects (population) to allow for a decision on the interdependence (independence) of the traits examined. Another condition is the similarity in terms of the activities of the corporations in the sample, allowing their comparison, as well as the minimum number of observations of a random variable.
2. Segregation – corporations that did not include their reports in the collection of documents of the public register of business entities are excluded from the sample.
3. Classification – corporations are divided into three size groups according to the criteria provided in Tab. II, which should allow a statistical assessment of the existence of an impact of the size of the entities on their performance.
4. Analysis and evaluation of the qualitative level of reports – European and Czech accounting legislation emphasizes mainly the reporting of economic (quantitative) information, while non-financial information must be published as of 1 January 2017 by capital companies which, when certain criteria are met, produce an annual report at the end of the accounting year. The annual report is audited along with the financial statements and, pursuant to Section 21 of the Accounting Act, also contains non-financial information on the anticipated development of the corporation's activities, research and development activities, environmental protection activities and labor relations. Companies that are issuers of securities on a regulated securities market in EU Member States must prepare financial statements in accordance with IAS/IFRS. Corporations prepared financial statements in accordance with International Accounting Standards for the first time, in the accounting period following the year in which the Czech Republic's Treaty of Accession to the EU entered into force. IAS/IFRS does not require disclosure of non-financial information but leaves the option to disclose the information needed for users to make decisions in the notes or comments on the financial statements (Bohušová, 2011; Otavová and Gláserová, 2017). Nor do they specify the content of the annual report, unlike public capital market regulators, who require the issuer's annual reports. Report quality is evaluated in four hierarchically organized levels.

For validate the published assumptions about the existence of a positive relationship between the quality of reports and sizes of business corporations, as well as the relationship between quality and economic results achieved are formulated hypotheses. Chi-Square's statistical independence test is used to confirm or refute hypotheses.

II: *The criteria used for classifying companies*

Criterion	Category		
	Small	Medium-sized	Large
Total net assets in CZK	> 9,000,000 ≤ 100,000,000	> 100,000,000 ≤ 500,000,000	> 500,000,000
Net annual turnover in CZK	> 18,000,000 ≤ 200,000,000	> 200,000,000 ≤ 1,000,000,000	> 1,000,000,000
Average number of employees	> 10 ≤ 50	> 50 ≤ 250	> 250

Source: Own elaboration according to the Act No. 563/1991 Coll.

III: *The quality of analyzed corporate reporting broken down by size*

Criterion	Small	Medium-sized	Large	Total
A	63	64	13	140
B	11	75	23	109
C	0	11	16	27
D	0	0	9	9

Source: Own elaboration

RESULTS AND DISCUSSION

The research sample compiled according to the above methodology, of all Czech industrial corporations that were actively engaged in 2018 contains a total of 285 corporations. In terms of reporting, these are corporations that must or may disclose non-financial information about their business. In order to achieve the stated objectives, corporate reports are subjected to analysis and evaluation both in terms of the relationship between the quality of reported information and the size of corporations, and also in relation to the quality of reports and their achieved economic results (Cavaco and Crifo, 2014). The structure of corporations is shown in Tab. III.

Relationship Between the Quality of Non-financial Reporting and the Size of Business Corporations

The analysis of corporate reports in the sample resulted in the classification of corporations into three groups according to the criteria given in Tab. II. Subsequently, reports were assigned to each group at the appropriate quality level. The quality of the reported information was assessed at four levels according to the scale described in the research methodology. These are hierarchically organized quality levels from worst to best perceived by users of reports, annual reports, or separate reports reported by corporations included in the research sample. The trend of improving the quality of corporate information disclosure, not only about its success, but also about its usefulness, is not only a consequence of regulation in the form of legal standards, but above all an understanding of its usefulness with regard to the long-term development of the whole society. To verify that the quality of business corporation reports increases independently of the size of the referring corporations, we measure the frequency of reports published at each quality level. The following hypotheses can be stated to confirm or reject the indicated development trend:

H_0: The quality of corporate reporting in terms of non-financial information (level A and B) is independent of its size.

H_1: The quality of corporate reporting in terms of non-financial information (levels A and B) varies depending on their size.

We calculate the test statistics by the equation

$$X^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(n_{ij} - e_{ij})^2}{e_{ij}}, \quad (1)$$

where:

X^2 ....test statistics (criterion)[2],

n_{ij}.........observed frequencies of combinations of individual variables,

e_{ij} ....expected frequencies of combinations of individual variables.

The null hypothesis about the independence of both variables is rejected at the significance level α when the test statistic value X^2 exceeds the

2 In English, the test criterion is referred to as p-statistics.

respective 100 (1 - α)% quantile distribution X^2, i.e. when the equation holds:

$$X^2 \geq \chi^2_{(r-1)(c-1)}(1 - \alpha), \quad (2)$$

where:
χ^2..........critical value of Chi-Square distribution[3],
α...........level of importance,
r, c........number of observations of individual quantities.

The critical value of the distribution of Chi-Square is determined for *df* by the number of degrees of freedom according to the formula:

$$df = (r - 1)(c - 1) = (3 - 1)(2 - 1) = 2. \quad (3)$$

The given number of freedom corresponds to the critical value which is the quantum of Chi-Square distribution on the significance level α = 0.05:

$$\chi^2_{(12)}(0.95) = 5.991. \quad (4)$$

The critical value of the respective Chi-Square quantile is 5.991 for the selected significance level α = 0.05. The calculated values of the test statistics are compared with the critical value and if they satisfy the inequality (2), we reject the null hypothesis of the independence of the variables. To verify the standpoint, we calculate the *p*-value, which is defined as the probability that, when the null hypothesis is valid, the test statistic gains an existing value, or even more extreme (less favorable to the H_1 hypothesis). The calculated values of the distribution of Chi-Square at qualitative levels A and B for the monitored corporation sizes are shown in Tab. IV.

The test results confirm with 95% probability that the quality of reports in categories A and B (in terms of non-financial indicators) is significantly dependent on the size of the corporations that publish them. The calculated *p*-value is less than the selected value α and thus the validity of the hypothesis H_1 is confirmed at the significance level of 0.05. From a comparison of p-statistics and p-critical we receive the same result. This confirms the fact that small and medium-sized corporations perceive the positively increasing information needs of stakeholders and, in addition to financial reports on success, issue non-financial reports on utility in the environmental and labor law areas. The analysis showed that category B reports were published voluntarily not only by small corporations but also by medium-sized corporations that are not subject to regulation.

In assessing the quality of the C and D reports, it was necessary to exclude small corporations whose reports contained neither corporate social responsibility (ESG) information nor integrated financial and non-financial information as a separate report or as part of an annual report (GRI). Level D was recorded only for large trading corporations. Only medium and large corporations fulfilled the conditions for the Chi-Square independence test in these categories. Again, we formulate two hypotheses:

H_3: The reporting quality of medium and large corporations in terms of non-financial information (levels A to C) is independent of their size.

H_4: The reporting quality of medium and large corporations in terms of non-financial information (levels A to C) varies depending on their size.

The calculated values of the distribution of Chi-Square at qualitative level A to C for small and medium-sized corporations are shown in Tab. V.

The comparison of the calculated value of the test statistic with the critical value shows that the inequality (2) is fulfilled and we therefore reject hypothesis H_3 about the independence of variables. To verify the negative standpoint, we calculate the *p*-value, which confirms the significant dependence of the reporting level of medium and large corporations on their size, on the significance level of 0.05.

Influence of Non-financial Reporting Quality on the Financial Situation of Business Corporations

As the literature review revealed, research projects and studies mostly agree on the important role of social responsibility and the long-term sustainability of business corporation development. The successful management of social, ethical, environmental, legal and other non-financial factors helps to ensure a stable and resilient corporation capable of providing sustainable shareholder

IV: *Test of independence Chi-Square (qualitative aspect at levels A and B)*

p-statistic	degree of freedom	*p*-critical	*p*-value
36.901	2	5.991	1.E-08

V: *Test Chi-Square (small and medium-sized corporations, qualitative aspect)*

p-statistic	degree of freedom	*p*-critical	*p*-value
19.035	2	5.991	7.355E-5

3 The critical value is referred to as p-critical.

VI: *Test of independence Chi-Square (report quality and profitability)*

p-statistic	degrees of freedom	*p*-critical	*p*-value
0.338	2	5.991	0.8445

value. The positive relationship between meeting stakeholder needs and company performance also results from stakeholder theory. According to Cavaleri and Shabama (2018) or Dobrovič and Timková (2017) corporations, that present their CSR activities achieve better financial results because CSR activities support sustainable business strategy and organizational change. Myšková and Hájek (2019) examined the existence of a correlation between CSR information and selected financial indicators using the frequency of words in annual reports (10-K forms). A sample of 1,380 corporations selected from a database from the US Securities and Exchange Commission database found that corporations that publish non-financial information realize that users are developing a more favorable view of corporate behavior and stability, which in effect leads to increased performance.

Our research is also based on the assumption of a positive correlation between the quality of reporting and the economic results of business corporations. The methodology of the research remains unchanged, i.e. data excerpted from the reports of joint-stock companies, which in 2018 were actively doing business in the Czech region (CSO, 2019) in the manufacturing industry, entered the analysis. The scale described in the research methodology at levels A to C will again be used to assess the quality of the reports, given that low observation rates at the highest quality level (D) do not qualify for static evaluation. The economic situation is monitored both at the level of corporate profitability measured by the ratio ROA calculated according to equation (5) (indicator ROA ≥ 0.07) and at the level of debt measured by the FL indicator calculated according to the equation (6).

$$ROA = EBIT/TA \geq 0.07, \tag{5}$$

where:
ROA.....Return on Assets,
EBIT....Earnings Before Interest and Taxes,
TA........Total Assets.

The value of the indicator should not be less than the threshold derived from the average values reported on the sample, as the higher value represents the greater production power of the corporation, which creates value for shareholders.

$$FL = BD / TA \leq 0.52, \tag{6}$$

where:
FL........Financial Leverage,
BD........Book Debts,
TA........Total Assets.

The indicator value should not be greater than the threshold value derived from the average values reported on the sample. In establishing the threshold value, account should be taken of the fact that financial leverage can act in both directions. According to financial theory, it can increase the equity of a corporation if the average cost of capital does not exceed the minimum U-curve or, conversely, increase the risk and threaten the very existence of the corporation. If equity is not increased then exceeding the threshold value will cause difficulties in obtaining additional resources.

To determine the existence of a significant correlation between the quality of the reports and the achieved profitability of the corporation, we will again use the independence test and formulate the following hypotheses:

H_5: The profitability of business corporations, as measured by the ROA indicator, is independent of the quality of the reports in terms of non-financial information (levels A to C).

H_6: There is a positive correlation between the quality of reports in terms of non-financial information (levels A to C) and the profitability of business corporations as measured by the ROA indicator.

The result of the corporate profitability independence test on report quality (levels A to C) is summarized in Tab. VI.

It is clear from the table that the given values do not satisfy the inequality (2) and therefore the hypothesis of the existence of a positive correlation is rejected and the hypothesis $H_{5.}$ is confirmed. It has been proven with high reliability that the profitability of industrial corporations in the Czech region is not affected by the quality of the published financial and non-financial information.

We will use the same methodology to assess the correlation between corporate debt and report quality. The independence test will again verify the validity of formulated hypotheses:

H_7: The indebtedness of business corporations as measured by the FL indicator is independent of the quality of the reports in terms of non-financial information (levels A to C).

H_8: There is a negative correlation between the indebtedness of business corporations as measured by the FL indicator and the quality of reports in terms of non-financial information (levels A to C).

The results of the corporate debt independence test on the quality of their reports (levels A to C) are summarized in Tab. VII.

The comparison of values in Tab. VII did not confirm the validity of hypothesis H_8 about the

VII: *Test of independence Chi-Square (report quality and indebtedness)*

p-statistic	degrees of freedom	*p*-critical	*p*-value
1.351	2	5.991	0.5089

existence of a negative correlation between reported corporate indebtedness and the quality of their reports. It is therefore clear that as the quality of reports increases, the indebtedness of industrial corporations is not reduced.

CONCLUSION

In this paper we investigated the existence of the impact of the size of business corporations on the quality of publishing information about their activities and the impact of the quality of reports on the economic results of corporations. The source data of empirical research were obtained from a sample of business corporations from the manufacturing industry. Reports were excerpted in the form of financial statements and annual or separate reports of 285 joint-stock companies, which in 2018 actively pursued economic activities selected according to the CZ NACE statistical classification. The aim of the empirical analysis was to classify the quality according to the structure and content of the reports, which varied both in form and content from only economic information to integrated financial and non-financial information compiled according to the GRI methodology. The grading scale created to assess the quality of reports contained four hierarchically ordered levels.

The aim of the research is to determine whether there is a correlation between the size of business corporations and the quality of reports, respectively the extent to which the size of a corporation can affect the quality of reports. The existence of a relationship of quality and its influence was also examined in terms of the achieved economic results of corporations. Hypotheses H_1 to H_8 were formulated to fulfill the stated goals. To confirm the validity of the hypotheses or to reject them, a statistical test of the independence of the Chi-Square variables was used.

The test results confirmed a significant dependence on the level of $\alpha = 0.05$ between the size of corporations and the level of their reports. Size has been shown to positively affect the level of reports issued by industrial joint stock companies in the Czech region. This is because large corporations are becoming market leaders in product markets and attract more attention from stakeholders who want to know their behavior in terms of social responsibility and long-term sustainability. These are not only effects in the context of their success, but also the negative impacts of their environmental, social and administrative activities. It can be stated that the results of the research carried out in joint-stock companies active in the manufacturing industry in 2018 are consistent with the findings of the study based on data from the 2014 annual reports of US companies (Myšková and Hájek, 2019). Unlike KPMG's survey (see Fig. 1), GRI reports were only reported by large corporations in the research sample, with a share of less than 15%.

We also found a correlation between the quality of the reports and the indebtedness of corporations. We assumed that, in line with financial theory, higher reporting quality would translate into reduced indebtedness and the associated risk of corporate insolvency or bankruptcy. The independence test was again used to confirm the hypothesis of the negative impact of reporting quality on corporate indebtedness.

The test results did not confirm a significant correlation ($\alpha = 0.05$) between the quality of reports and the indebtedness of corporate sizes and the level of their reports. On the contrary, hypothesis H_7 about independence of tested variables was accepted.

In comparison with the findings of published studies and surveys on non-financial information, the research confirmed a gradual improvement in the quality of reporting in Czech joint-stock companies active in the manufacturing industry. A positive result is that non-financial information is published not only by corporations traded on public capital markets imposed by Directive of the European Parliament and EU Council No. 2014/95 / EU implemented in Czech legislation, but also by large and medium-sized corporations in the annual reports. On the other hand, the achievement of higher quality reporting is hampered by the fact that the Czech government authorities have not tightened the requirements for non-financial reporting when transposing the Directive or extended the obligation outside the public interest group. The problem remains the persistent unwillingness of business corporations to disclose financial statements in the public register at all, regardless of their size. The main reason for this may be concerns about the possible misuse of publicly available data on the financial position and performance of the corporation by competitors and also the lack of law enforcement enshrined in Czech legislation. The United Nations Sustainable Development Goals (SDGs) increase corporate transparency requirements not only for financial and non-financial performance, but also for the financial risks and opportunities they face and the likely impact on corporate value creation in the short and long term horizon. The task of future research will be to transform non-financial information.

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