LEIPZIG GRADUATE SCHOOL OF MANAGEMENT

HHL Working Paper

No. 181 November 2019

Voluntary Strategy Disclosure and Qualitative Principles

Evidence from German Management Reports

Sophie Winter[a], Henning Zülch[b]

[a] *Sophie Winter is a research associate at the Chair of Accounting and Auditing at HHL Leipzig Graduate School of Management, Leipzig, Germany. Email: sophie.winter@hhl.de*

[b] *Prof. Dr. Henning Zülch is Holder of the Chair of Accounting and Auditing at HHL Leipzig Graduate School of Management, Leipzig, Germany.*

The empirical research focuses on strategy disclosure in management reports of German capital market-oriented companies and analyzes whether and in what quality these companies disclose strategy related information. The three main objectives of the research are: (1) to develop a scoring model to measure strategy disclosure; (2) to describe the quality of strategy disclosure of the analyzed companies using a scoring model; and (3) to formulate qualitative principles for strategy disclosure. Disclosure about strategy and strategic objectives were hand-collected through content analysis of management report. The sample comprises 110 German listed firms from 2014 to 2017. The results show that the quality level of strategy disclosure of the largest publicly listed German companies is mediocre in all three years. In general, there is a high level of information about the business environment and opportunities/risks in the strategic context. The study develops a new comprehensive scoring model to measure voluntary strategy disclosure. Based on the scoring model principles are formulated for good strategy reporting. The results contribute to the previously little researched area of voluntary strategy disclosure in management reports and can be seen as a relevant source of information for investors and business practitioners.

The authors are grateful to the participants of the 14th Asia Pacific Management Accounting Association (APMAA) Annual Conference 2018 in Tokyo, Japan and the HHL Graduate School of Management Colloquium for their constructive comments.

VOLUNTARY STRATEGY DISCLOSURE AND QUALITATIVE PRINCIPLES: EVIDENCE FROM GERMAN MANAGEMENT REPORTS

Contents

1 *Introduction*

The strategy of a company is a decisive factor for its future business success. It is vitally important especially for capital market-oriented companies to have a clear and focused strategy (Ansoff, 1965; Porter, 1980). The communication of the corporate strategy and strategic objectives to stakeholders gives a company the chance to distinguish itself from its competitors (Kohut & Segars, 1992). However, strategy reporting is often neglected, while it can be an advantageous factor for a company to strengthen its position on the capital market. Studies have shown that the increasing focus on transparency (Amran, Ooi, Mydin & Devi, 2015; Kolk, 2008) has forced companies to reconsider their voluntary disclosure. Complete disclosure of a company gives the addressees of the annual reporting and investors of the company the opportunity to see anything and everything (Elliott & Jacobson, 1994). For this reason, several studies support the inclusion of management forecast and forward-looking information (Elgammal, Hussainey & Ahmed, 2018) in the financial statements in order to increase the relevance and value of the financial reporting to the company's addressees and investors (Abrahamson & Amir, 1996). In particular, this sensitive information may be important in credit and investment decisions as they include useful information other than the information in the financial statement (Abrahamson and Amir, 1996; Lev & Thiagarajan, 1993). The International Accounting Standards Board formulated four qualitative characteristics for information, to be characterized as decision-useful. They are stated in the Conceptual Framework of the International Financial Reporting Standards. The principles are: relevance, reliability, comparability and consistency (IFRS 2018). In general principles for non-financial information are rather rare. Especially for strategy disclosure, no principles have been formulated at the international level. Guidelines for other non-financial information like the Global Reporting Initiative Frame (GRI 2016) for information in the context of corporate social responsibility are used in this study to derive principles for strategy disclosure. Since Germany is one of the few countries with legal requirements for voluntary strategy disclosure, based on an analysis of German capital market-orientated companies, general qualitative principles should be derived as result of this study.

The first research question of this study is whether and to what extent German capital market-oriented companies report on their corporate strategy. The German regulatory requirements have not been analyzed before. The findings are a valuable contribution to the ongoing discussion on voluntary strategy disclosure, which is a neglected topic in academia and of high interest for practitioners. Furthermore, the used scoring-model evaluates all criteria based on the individual strategy of a company and is unique compared to other measurement tools used in research before. Based on the findings and related to the second research question, general qualitative principles will be formulated, which can be used for all capital market-oriented companies and companies who are interested in a high quality strategy reporting.

This study is structured as follows. In **section 2**, the theoretical concept of voluntary strategy disclosure and the related literature are discussed. In **section 3**, the research question is formulated as well as the sample selection procedure and sample characteristics are described. In **section 4**, the results are presented and the descriptive statistics is described, whereas we check for reliability and validity of the model. In addition, the limitations of the study are discussed. Finally, qualitative principles for strategy disclosure are formulated. **Section 5** concludes with a discussion of the study and further research questions accompanied by a short summary.

2 *Literature Review and Theoretical Background*

2.1 Voluntary Strategy Disclosure

The definition for strategy used in this study corresponds to the classical understanding of strategy, according to which strategy can be defined as ‘the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals’ (Chandler, 1993). The process of strategic management (Robbins & Coulter, 2016; Welge & Al-Laham, 2012) formulates individual process steps seen as important and relevant to realize a strategy and achieve a strategic goal (see Figure 1). This understanding builds the basis of this study.

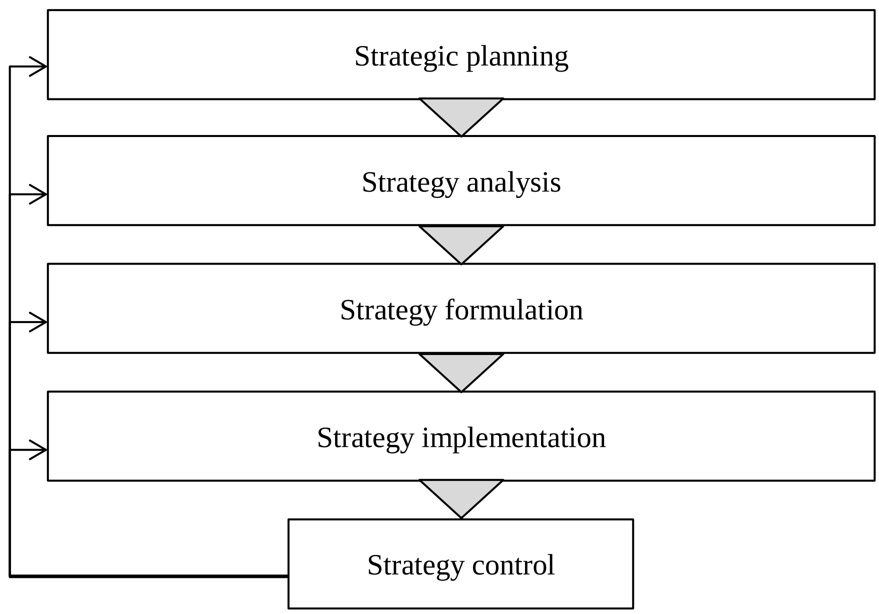

Figure 1: Strategic Management Process

Source: Own illustration, based on Welge & Al-Laham (2012, p. 186).

Based on strategic planning an analysis of the strengths, weaknesses, opportunities and threats (SWOT-analysis) helps to understand the internal and external effects on the business. After the analysis a corporate strategy and related strategic objectives can be formulated and implemented. The control process builds the last step and is additionally linked to each step prior to the strategic management process. Ultimately, the corporate strategy is important to achieve the Group's strategic objectives. Objectives are defined as a future aspired or to be reached state and classified as strategic if a reference to the strategy of the corporation is given. Operational objectives are generally part of the forecast report and are not directly related to the strategy (see German Accounting Standard (GAS) 20.B23). Strategic objectives can be financial or non-financial; hence both kinds of strategic objectives are relevant for this study, but only if the reference to the corporate strategy is explicit.

Corporate reporting is an essential requirement for an efficient capital market (Healy & Palepu, 2001). Especially based on the capital market transaction hypothesis, companies have incentives to disclose financial and non-financial information on a voluntary basis to market participants (Healy & Palepu, 2001; Verrecchia, 2001). Disclosure of strategy relevant information is on a voluntary basis. This is why it is important to focus on the reasons for capital market participants to engage in voluntary disclosure. It is widely accepted that the benefit of providing more information to the capital markets is a lower cost of capital. This is proven from a theoretical perspective; see Amihud and Mendelson (1986), Diamond and Verrecchia (1991), Glosten and Milgrom (1985) and Merton (1987). Furthermore, Dye (2001) discusses the relation of game theory and voluntary disclosure, whereby he finds that, under the assumption that corporates tend to disclose advantageous information, voluntary disclosure is a special case of game theory. For corporate reporting, this implies that not providing information is a signal. In this context the signaling theory, which is dominated by the work of Spence (1973; 2002), should be emphasized. Principal Agent theory provides a common framework of why voluntary disclosure contributes to reducing information asymmetries (Abdullah, Shukor, Mohamed, & Ahmad, 2015). Based on the Principal Agent theory, formulated by Jensen and Meckling (1976) the conflict of interest and asymmetric information between a principal and an agent results in agency costs . More precise information implies a better decision and thus higher benefit, which is an argument for voluntary disclosure based on the Principal Agent theory. Furthermore, Stakeholder theory offers convincing arguments for corporates to have a transparent communication to their stakeholders. In addition to stockholders, Stakeholder theory says that there are other groups who have a stake in the actions of the corporation (Freeman & Reed, 1983). A corporation can improve the economic performance through engagement with stakeholders, whereby sustainable support of all stakeholders is necessary. Voluntary disclosure of corporate strategy can be seen as an instrument to engage with stakeholders to achieve a benefit for the corporation. Furthermore, the communication of the corporate strategy and strategic objectives to stakeholders gives a company the chance to distinguish itself from its competitors. From a theoretical perspective, voluntary disclosure could also be seen in a critical light, because the information are non-verifiable and non-binding. For this reason, the risk of 'cheap talk' exists; see Crawford and Sobel (1982), Farrell and Gibbons (1989) and Sieber, Weißenberger, Oberdörster & Baetge (2014). Similar to Sieber (2011), we focused on the information provided in the management report to minimize the problem of potential cheap talk. Because this is the mandatory part of the annual financial reporting of the observed companies.

2.2 Literature Review

Relevant studies, which implement parts of the strategic management process in their evaluation model, while measuring disclosure of companies, are Botosan (1997), Broberg, Tagesson and Collins (2010), Cooke (1989), Gray, Meek and Roberts (1995), Jones (2007) and Meek, Roberts and Gray (1995). All these studies focus on the effects of disclosure of companies and especially voluntary disclosure. Therefore, all of them measure the extent of disclosure while including strategy related criteria. The reporting about the strategy of the company and strategic objectives is a central component of these studies, but also other reporting components have been analyzed. The presentation of strategic objectives and corporate strategy as well as their implementation play a comparatively minor role. Coebergh (2011), Morris and Tronnes (2018), Padia (2012), Sieber (2011), Sieber et al. (2014), Santema and van de Rijt (2001), Santema et al., Hoekert, van de Rijt and Oijen (2005), Ungerer (2013) as well as Ungerer and Vorster (2015) focus exclusively on strategy reporting. Whereas Santema and van de Rijt (2001) analyze the strategy disclosure of Dutch annual reports, the study by Santema et al. (2005) builds on the disclosure score of the previous study and evaluates the strategy disclosure in five different European countries. Both studies include the disclosure of the corporate strategy and strategic objectives as a central aspect in their model and analyze the business environment in the strategic context. The results of the studies are mediocre, because companies pay little attention to objectives, monitoring, business unit goals and future-oriented action plans. Padia (2012) analyzes the disclosure of non-financial information on strategy in South African annual reports based on the criteria catalogue from Santema and van de Rijt (2001). The results of this study show that companies in South Africa pay more attention to the description of the strategic mission and objective. In general the overall results of the study by Padia (2012) indicate an increase in non-financial disclosure in the annual reports especially of information that is strategy related. The study by Sieber (2011), which also builds the basis for the study of Sieber et al. (2014), evaluates the strategy disclosure in German management reports. Sieber et al. (2014) deals with the impact of voluntary strategy disclosure on the cost of equity capital. As few other studies, this study considers all steps of the strategic management process from a theoretical perspective and also integrates legal requirements in the criteria catalogue, while evaluating the voluntary strategy disclosure of capital market-oriented companies. Similar to the results of Santema and van de Rijt (2001), they show that the strategy disclosure is mediocre. Additionally, they find that higher disclosure levels are, on average, associated with lower cost of equity capital (Sieber et al., 2014). Therefore, the study provides evidence that voluntary strategy disclosure in firms' management reports reduce the information asymmetry component of the cost of capital. Coebergh (2011) constructed a measuring tool for strategy disclosure based in disclosure through annual reports, press releases, websites and annual CSR-reports and orientated the model closely on the scoring model from Santema and van de Rijt (2001). Ungerer (2013) investigated the level of disclosure related to core strategic elements of a firm. In this measurement tool Global Reporting Initiative (GRI) G3 performance indicators were included in the empirical analysis. These are mainly: strategy and analysis; organizational profile; report scope and boundary; commitment to external initiatives; stakeholder engagement; and economic performance. The results also indicate a mediocre strategy disclosure in South Africa. Similar results found Morris and Tronnes (2018), with an average strategy disclosure score of 56.82%. Those analyzed strategy disclosure in five dimensions, which are boundaries of the firm, market and competition, positions and dynamics, internal organization and forecast. Based on the current research no study exists which considers the strategic management process from a theoretical perspective and includes valid legal requirements, like the GAS 20 in Germany, to measure the voluntary strategy disclosure of capital market-oriented companies in the last years. This study picks up on this neglected topic and thus wants to satisfy the claim of closing a research gap.

3 *Methodology*

3.1 Research Question

Based on the theoretical and conceptual foundation in this study, it becomes clear that information on the corporate strategy and strategic objectives can be a relevant topic for reporting addressees. However, as there is no obligation to report on strategy related information, disclosure is voluntary. Based on this theoretical background, we formulate the following research question:

> *To what extent do publicly listed German companies disclose information about corporate strategy and strategic objectives in the management report?*

The first step is to examine whether the scope of reporting on corporate strategy in the management report of German publicly listed companies is measurable. Subsequently, a statement is to be made as to whether publicly listed German companies publish strategy-related information. If so, the degree of strategy disclosure will be measured by developing a suitable measuring instrument that allows a direct comparison. The aim of the empirical study is ultimately not to evaluate the corporate strategy of a company, but to make a statement about the degree and quality of reporting on this topic. In addition to information on the level of disclosure, another focus is on the nature of the corporate strategies and strategic objectives that companies report on. Assuming that strategy reporting is relevant from an investor's and addressee's point of view, the study should include this aspect as part of its findings and the second research question is as follows:

> *Which qualitative principles can be derived from the strategy disclosure by German capital market-oriented companies?*

Based on the second research question qualitative principles will be formulated for managerial practice. Those principles can be used from practitioners and preparers of the financial report to enhance their strategy reporting. Furthermore, they can be seen as quality characteristics for good strategy reporting and as orientation for financial reporting addressees. This study is mainly descriptive, but has the aim to get new insights in an under-researched topic. Based on the descriptive findings strategy disclosure the principles can be seen as qualitative guidelines for capital market-oriented companies.

3.2 Sample Size and Research Model

The sample comprises the 110 largest publicly listed German firms (largest based on market capitalization) between 2014 and 2017. We focus on the German capital market and on the main indices of the stock exchange provider 'Deutsche Börse Aktiengesellschaft'. The three main indices DAX, MDAX and TecDAX, comprise 110 companies, which results in 330 firm-year observations. In addition, fifteen foreign companies are excluded from the sample as they are not registered under German law and therefore do not have to provide a management report in accordance with GAS 20 in their annual report. Finally, 315 firm-year observations build the sample for the analysis (see Table 1). Companies with the legal form of a 'Societas Europaea' are included in the sample, as in these cases the law of the country of residence applies.

Sampling procedure steps	June 30, 2015	June 30, 2016	June 30, 2017	Total
Firms listed in selection indices				
Dax	30	30	30	90
MDax	50	50	50	150
TecDax	30	30	30	90
	110	110	110	330
Exclusion because registered under non-German law	-4	-5	-6	-15
Number of sample firms	106	105	104	315

Table 1: **Sample selection procedure**

Source: Own illustration.

The analysis of strategy disclosure focuses on the German management report, as under German GAAP (Section 264 (1) of the German Commercial Code in conjunction with Section 315a of the German Commercial Code; Section 289 of the German Commercial Code) the management report provides the framework by which corporations disclose information about their business and economic situation. Moreover, the management report shows a high degree of reliability and availability with regard to its mandatory disclosure and audit obligation. As voluntary strategy disclosure is part of the mandatory annual financial reporting, it is also a component of the auditor’s examination, which increases the credibility of information (Healy & Palepu, 2001). In order to assess the extent to which the analyzed firms disclose information about their strategy, the management reports of companies were evaluated as of June 30. The data from 01.07.2014 to 30.06.2015 are categorized as 2015. This procedure is also applied analogously for the other years. Each management report has been read and subsequently analyzed by an analyst.

In order to measure the degree of disclosure, literature provides several empirical approaches. Studies like Botosan and Plumlee (2002), Healy, Hutton and Palepu (1999), Lang and Lundholm, (1993) as well as Lang and Lundholm (2000) used archival metrics on disclosure rankings. Based on a normative understanding, other studies developed scoring models (e.g. Botosan & Plumlee, 2002; Healy et al., 1999; Lang & Lundholm, 1993; Lang & Lundholm, 2000). This study uses content analysis of annual reports; like Maaloul, Amar and Zeghal (2016), Santema and van de Rijt (2001), Sieber (2011). It is based on a self-constructed strategy disclosure score (SDScore) as an evaluation instrument. The advantages of this model are, on the one hand, its independence from third-party analysis and, on the other hand, the possibility of combining theoretical and normative requirements in one model. However, the risk of subjectivity exists, but has been minimized. Similar to the approach of Santema et al. (2005), the first 92 management reports that have been assessed at the beginning of the research were reviewed at the end of the period. As a result no substantial differences were observed between the evaluation results between the first and second assessment. In addition, we have explicitly tested the reliability and validity of the measured scores.

Based on the literature review and legal requirements, fifteen elements were selected which provide a comprehensive picture of the disclosure of the corporate strategy. For the analysis a scoring model is used. The fifteen criteria of the scoring model are based on the classical strategic management process. Furthermore, the legal requirements and in particular GAS 20, build the basis for the analysis. In order to reduce subjectivity, all requirements of GAS 20 are taken into account in the scoring model, which ultimately leads to 13 criteria. In addition, two further criteria are formulated which are based on the relevance of the strategic management process. The strategic target planning step of the strategic management process was neglected to such an extent that the risk of subjectivity in identifying the vision and mission of the companies was too high. In total, the remaining four steps of the strategic management process are divided into 7 sub-categories (see Appendix A).

The criteria are limited to those items that all companies can disclose regardless of firm size and industry affiliation. In addition, we did not award multiple points for multiple information on the same criteria and analyzed all criteria at the enterprise level. Therefore, information at business level was not included in the analysis. Following the SWOT-analysis in conjunction with the requirements of GAS 20.40, both external environment aspects and internal business effects are taken into account in the *Strategy Analysis* category. The *Strategy Formulation* category focuses on the presentation and operationalization of the strategic objectives and the corporate strategy. The implementation of the discussed strategic objectives and corporate strategy forms the basis for the *Strategy Implementation* category. A decisive factor here is reporting on the remuneration system for management and the internal control system of the company in context of the corporate strategy. As a control aspect, the focus in the *Strategy Control* category is on changes in strategy and the achievement of strategic goals.

In this study, a dichotomous method is chosen to evaluate the criteria. For each of the criteria a dummy scale (0 or 1) is applicable, indicating whether the relevant information is disclosed or not (as in Botosan, 1997; Jones, 2007; Meek et al., 1995; Sieber, 2011; Morris & Tronnes, 2018). All criteria are evaluated on the same scale and the weighting is equal. The main objective of the evaluation is to translate qualitative information into a quantitative value. The same valuation method is used for all companies in the sample, which allows a reliable comparison between the analyzed companies.

The scoring model uses a similar approach to Sieber (2011) and the SDScore is calculated as follows:

(1) $$SD_{t,i} = \sum_{k=1}^{n} s_{t,k,i}$$

(2) $$SDScore_{t,i} = \frac{SD_{t,i}}{SD^{max}}$$

$s_{t,k,i}$	Disclosure of aspect k of corporate i in t; {0 ∨ 1}
$SD_{t,i}$	Strategy Disclosure Value of corporate i in t
$SDScore_{t,i}$	Strategy Disclosure Score of corporate i in t; {0,1}
SD^{max}	Maximum possible number of Strategy Disclosures

In addition, the formal perspective of the information are part of the evaluation. The formal criteria have no impact on the SDScore, but are important to assess the significance of the criteria of the scoring model and to provide information on the presentation of the strategy disclosure in the management report. This study evaluates company-specific information and considers all criteria measured within the corporate strategy – explicitly on the basis of the individual strategy of the company and not on a general level. In practice, this means that only strategies and strategic objectives defined by the company are used to assess the criteria related to this strategically relevant information. The SDScore serves as a reliable measurement to obtain an assessment of the quality and degree of strategy disclosure. Based on the analysis of the descriptive results of the SDScore, qualitative principles are derived. These principles are formulated on a general basis and can be applied for all companies, regardless of industry affiliation and size.

4 *Results*

4.1 Descriptive Statistics

In this section the descriptive results of the disclosure of the strategy of German capital market-oriented companies are presented. Table 2 shows the SDScores of the companies from the sample size 2015, 2016 and 2017. The data are based on n = 315 observation.

		Extremes		Percentiles				
	Mean	Min	Max	25%	50%	75%	σ	n
2015	46.42%	6.67%	93.33%	40.00%	46.67%	53.33%	14.62%	106
2016	47.87%	6.67%	86.67%	40.00%	46.67%	53.33%	13.36%	105
2017	46.67%	0.00%	100.00%	40.00%	46.67%	53.33%	15.85%	104

Table 2: Distribution of SDScore

Source: Own illustration.

The average SDScore in 2015 was 46.42%, rose to 47.87% in 2016 and decreased to 46.67% in 2017. The median for all three years was 46.67%. These are similar results like Santema and van de Rijt (2001), Sieber (2011) and Padia (2012) found. The mediocre scores indicate that German capital market-oriented companies are generally reluctant to publish all strategy related information. The SDScore in 2017 shows the largest range with a minimum of 0% and a maximum of 100%. The results show that the SDScore of the largest publicly listed German companies is mediocre in all three years. It is noteworthy that there is a strong heterogeneity and variation in the SDScores. The overall impression is that German capital market-oriented companies neither disclose sufficient information about their corporate strategy nor report extensively on the business and related topics within the context of the strategy. It is conspicuous that most of the companies do not significantly change their reporting on strategy. The evaluation results show that 18.47% of the observed companies have a significant change in their SDScore in all three years (10% change in SDScore or higher) with regard to the change from 2015 to 2016 and from 2016 to 2017. Overall, there are more positive than negative changes, as 52.94% of all changes of the SDScore are positive over 10% during the period. Only 11.96% from 2015 to 2016 and 6.52% from 2016 to 2017 of the companies that were in the HDAX in all three years had a change in the SDScore of more than 20%.

Strategy phase	Sub-category	SDSub-Score			
		2015	2016	2017	Ø
Strategy Analysis	Economic environment	75.94%	76.67%	74.04%	75.55%
	Strategic situation	87.74%	90.48%	85.10%	87.77%
Strategy Formulation	Strategic objectives	44.03%	44.13%	41.35%	43.17%
	Corporate strategy	91.51%	94.29%	88.46%	91.42%
Strategy Implementation	Implementation process	49.53%	56.67%	57.21%	54.47%
Strategy Control	Changes in strategy	7.08%	6.90%	9.62%	7.87%
	Achievement of strategic objectives	17.92%	16.19%	16.35%	16.82%

Table 3: SDSub-Score related to the Strategy phase and relevant Sub-category

Source: Own illustration.

Table 3 divides the SDScores into relevant categories and subcategories. Especially in the category *Strategy Analysis,* companies have a high degree of disclosure. On average, 75.55% of all companies in the sample provide information on the internal and external economic situation within the context of the corporate strategy. This also applies to the disclosure of the prospective business as well as opportunities and risks in the strategic context of 87.77% of the companies. Therefore, the category Strategy Analysis has the highest disclosure of all categories in general. Nevertheless, the constantly decreasing level of disclosure of information about the company's opportunities and risks in the strategic context should be highlighted.

There is also a high level of disclosure in the category *Strategy Formulation*, which contains information about the company's strategy and strategic objectives. In both cases, the average level of disclosure, based on observed years and companies, is above 91%. However, there are weaknesses in the quality of disclosure of the scope and timing of the strategic objectives. For both criteria, less than on average 19% of companies published information in their management report. In addition, the level of disclosure about the designation of strategic objectives and their scope decreases over the years observed.

The level of disclosure in the category *Strategy Implementation* is moderate for the sampled companies in all observed years. On average, 54.47% of the companies reported on the relevance of the corporate strategy or strategic objectives for the remuneration system of the management and for the internal control system. In addition, disclosure of the remuneration system in the strategic context is increasing over the years.

The lowest degree and thus lowest quality of strategy reporting can be found in the category *Strategy Control*. Only an average of 7.87% of companies reported changes in their corporate strategy and strategic objectives during the observation years. In particular, the explanation of changes related to strategy is rather scarce and has the lowest level of disclosure. Given the relevance of this information for the addressee of the management report and investors, this is a sobering balance. However, reporting on changes in corporate strategy is constantly increasing over the years. In addition, the higher level of disclosure of the achievement of the strategic objectives in this category should be highlighted with an average of 16.80% of the companies observed. Even though Sieber (2011) categorized the evaluation criteria differently, the results of his study also showed low quality values for the criteria regarding strategy control, which confirm the results of this study.

	2015	2016	2017	Ø
Corporate strategy				
Growth strategy	86.79%	86.67%	79.81%	84.42%
Diversification strategy	14.15%	11.43%	9.62%	11.73%
Product development strategy	11.32%	11.43%	8.65%	10.47%
Strategic objectives				
Leader in innovation and/or technology	29.25%	45.71%	40.38%	38.45%
Market leader	39.62%	41.90%	31.73%	37.75%
Enterprise value	33.96%	27.62%	28.85%	30.14%
Customer satisfaction	29.25%	29.52%	23.08%	27.28%
Sustainable objectives	24,53%	21,90%	23,08%	23,17%
Market share	23,58%	28,57%	15,38%	22,51%
Employee satisfaction	22,64%	20,95%	22,12%	21,90%
Product development	11,32%	17,14%	21,15%	16,54%
Product quality	9,43%	16,19%	20,19%	15,27%

Table 4: Frequency of disclosure of corporate strategy and strategic objectives

Source: Own illustration.

Despite measuring the degree of voluntary strategy disclosure, the objective of this study is also to identify what corporate strategy and strategic objectives the observed companies are pursuing. Therefore, a qualitative analysis of the reported corporate strategy and strategic objectives is the basis for this part of the study. Multiple answers were accepted for this analysis. A quantitative result for the most commonly reported corporate strategies and strategic objectives can be determined based on the average of all observed companies (see Table 4). It is conspicuous that most companies pursue a growth strategy – on average 84.42%. In addition, an average of 11.73% of the companies disclosed that they pursue a diversification strategy and an average of 10.47% reported a product development strategy. Other corporate strategies were also disclosed, such as focusing on specialized service, internationalization and stabilization, etc., but all were below a disclosure level of 10%.

The number of disclosed strategic objectives is much higher, but there is no clear tendency towards an objective that dominates in terms of the frequency of identifiable disclosure. On average 38.45% of the observed companies disclose that being the ‘leader in innovation and/or technology’ is a strategic objective. Therefore, this is the most frequently reported strategic objective of the analysis. Followed by ‘market leader’ (average 37.75%) and ‘enterprise value’ (average 30.14%). Other reported strategic objectives reported by an average of less than 30.00% of the observed companies are ‘customer satisfaction’, ‘sustainable objectives’, ‘market share’ and ‘employee satisfaction’. In addition, ‘product development’ and ‘product quality’ are relatively rarely reported by companies as strategic objectives, but unlike the other reported objectives, they are the only ones show a tendency to be increasingly reported during the observation period.

Formal criteria	2015	2016	2017	Ø
Separate chapter in management report	80,19%	83,81%	77,88%	80,63%
Separate chapter outside the management report	12,26%	13,33%	13,46%	13,02%
Graphic element	23,58%	27,62%	26,92%	26,04%
Headline in the outline of annual report	43,40%	46,67%	45,19%	45,09%
Headline in the outline of the management report	57,55%	57,14%	52,88%	55,86%

Table 5: **Frequency of formal criteria**

Source: Own illustration.

The aim of this study is also to assess the formal presentation of strategy related information, which provides information about the quality of presentation. Neither the German legislator nor other institutions (such as the Accounting Standards Committee of Germany (ASCG)) provide guidelines or requirements for the formal presentation of strategy disclosure. It is noteworthy that the most companies (80.63% on average over three years) have their own chapter for strategy disclosure in the management report. In addition, a separate chapter is included in the table of contents of the management report by an average of 55.86% of the observed companies and in the table of the annual report by an average of 45.09% of the observed companies. This is a surprisingly low percentage of companies as strategy related information are very relevant to investors and when companies report on these topics, it is assumed that companies highlight this information. Only an average of 13.02% of the observed companies (additionally) disclose the strategy related information in a separate chapter, which is contained in the annual report but not in the management report and thus not part of the analysis. Although only a few companies do not disclose their strategy in the management report, the number of companies increases steadily over the years. In particular, the fact that the strategy related information disclosed in the management report is under obligation to have an audited review may be a reason why companies prefer their strategy reporting outside this part of the annual report.

4.2 Reliability and Validity

Although descriptive results provide an indication of the existence of disclosure of strategy in the management report, a formal analysis must be performed to determine whether the SDScore is capable of measuring the level of disclosure of strategy information. Since the criteria catalogue only consists of fifteen criteria which are applicable for all companies regardless the size, statistical reliability tests are not relevant. To assure that the SDScore measures the level of strategy disclosure in management reports and the model is valid, we analyze the statistical correlation between the self-constructed SDScore and an external measuring instrument. There are two options to measure validity. On the one hand, external proxies can be used. On the other hand, alternative measuring instruments can be analyzed for the same or similar observed sample period to measure validity. We use the second option to validate the evaluation results. Based on the analysis of the German capital market-oriented competition 'Investors' Darling', which analyzes the financial communication of the 160 largest publicly listed German companies, we calculate Sub-Scores for the strategy related disclosure parts in this competition and check the statistic relation.[1] The focus of this study is only on strategy related criteria and analyzes criteria that are similar to this model. In addition, we neglect formal criteria and only analyze criteria relevant to content in the model. The data from the 'Investors' Darling' competition refer to the annual report, where we have a difference to our model in the analyzed reporting parts. Due to the fact that the management report is part of the annual report and because of the informative function (the management report is the preferred part where companies report about their strategy) we neglect this difference. Based on the calculated Investors' Darling Score (IDScore), which measures the degree of strategy disclosure in the annual report of the relevant companies from the 'Investors' Darling' competition sample, we analyze the correlation between the IDScore and the SDScore of our model. The Pearson correlation analysis showed a positive significant correlation between these two variables for the entire observation period. Since the Shapiro-Wilk test showed that there is no normal distribution of the SDScore variables, we check the correlation of the IDScore and SDScore with the Spearman test for correlation. The Spearman test again shows a significant and positive correlation ($p = .00$), which is why we prove the validity of the results of our model. Therefore, the SDScore is a valid measurement of the degree of strategy disclosure.

---

[1] The competition 'Investors' Darling' is conducted under the direction of Professor Henning Zülch of the HHL Leipzig Graduate School of Management since 2014 in cooperation with the 'manager magazin' a German business magazine. The competition is based on a criteria catalogue and includes the overall reporting as well as investors' communication and capital market performance in the analysis. The scientific team of Professor Zülch analyzes the criteria for three categories each year and provided us with the relevant data to test for validity in our model.

4.3 Limitations

The two main limitations of this study are the sample size and the catalogue of criteria. In this analysis, we focus on the disclosure of HDAX companies between 2014 and 2017, resulting in a sample size of 315 observed company years. Future research should aim to increase the number of companies in the sample and provide a more comprehensive picture. This study focuses on a German sample size. Other European and international sample sizes could be used in future research to identify differences in disclosure quality based on the assumption that different cultures, business environments and legal systems affect the level of strategy disclosure. The time horizon should be extended to gain new insights into how voluntary strategy disclosure has evolved under different economic conditions. The second main concern relates to the criteria used in the analysis. 15 criteria were used, which are based on the theoretical strategic management process and the legal requirements for strategy disclosure in German management reports. There are probably other items that can be criteria for a certain degree of disclosure and quality of strategy related information.

In addition, there are many different factors that influence the extent to which companies disclose their strategy, such as industry sector, company size or corporate governance. Future research should focus on whether these factors have an impact on the level of strategy disclosure, and in this context the impact of strategy disclosure should be measured. On the basis of signal theory, it can be particularly interesting to examine the effects of the capital market, such as costs of capital, in further research.

4.4 Qualitative Principles

Based on the analysis of the SDScore and the descriptive results, qualitative principles can be derived. Five principles have been formulated for practitioners and preparers of financial reporting, which characterize a good strategy reporting[2]. Like the principles of sustainability reporting, which is a non-financial disclosure, the strategy reporting principles are divided into two groups: principles for determination of the content of a report and principles for ensuring the quality of a report (see GRI 2016). The principles of strategy reporting serve as a guide to ensure the quality of information in the strategy reporting and the proper presentation of that information. The quality of the information is critical to enable stakeholders to make decisions and to derive appropriate action from this assessment.

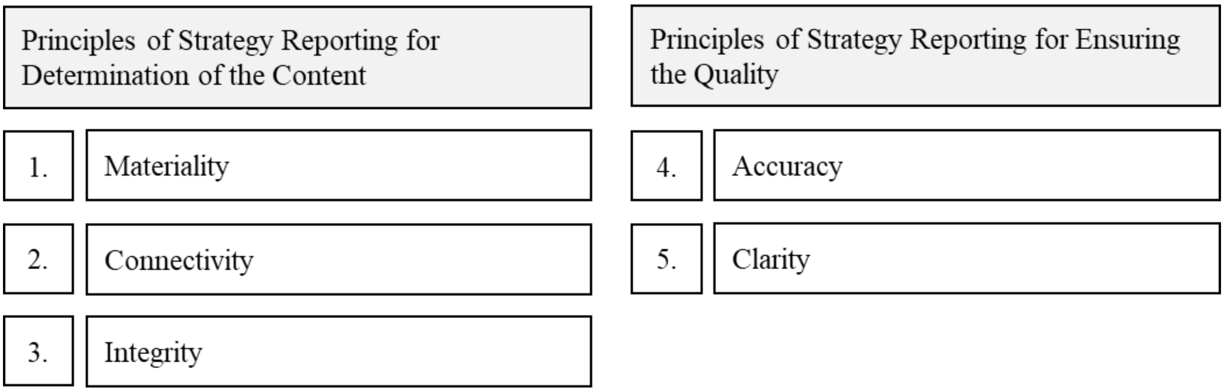

Figure 2: Five Principles of Strategy Reporting

Source: Own illustration.

The *first principle* focuses on the relevance of information and especially on **materiality**. Quality instead of quantity should be the decisive factor in the context of reporting. Companies should limit their strategy reporting to material information. Disclosure overload and repetitions leads to ambiguities among financial reporting addressees. The most important information about the corporate strategy should be clearly stated and give little scope for interpretation. The

---

[2] The five principles are an advanced version of the principles for strategy disclosure based on the analysis of Zülch and Winter (2017). Since our research includes a different sample and is meant to be as general principles for also other than German companies, the principles of this study are different to the qualitative characteristics from Zülch and Winter (2017).

strategy and strategic objectives should be presented for the company and at most for the main business areas. Unnecessary information can distract from the core contents and dilute the statement about the actually pursued strategy. Similar to CSR-Reporting (see GRI 2016) and financial reporting (see IFRS 2018), an information is material if it influences the (economic) decision of the stakeholders and especially of the corporate reporting addressees. Not all material issues are of equal importance, and it is expected that the priorities will be set out in the report reflect the relative importance of the issues.

The *second principle* is related to the **connectivity** of information. A company's strategy serves to achieve its strategic goals – therefore, both should be in line with each other and reported on accordingly. In order to give the financial reporting addressee a comprehensive picture of the implementation of the strategy and related objectives, reference should also be made to it in other parts of the report (e.g. opportunity and risk report, forecast report etc.). A holistic picture of the strategy should be conveyed and all relevant report contents should be presented in the context of the strategy. According to the criteria of the scoring model of this study, especially the current and expected business development, economic situation, opportunities and risks, compensation system, internal control system of the company should be explained in the context of the corporate strategy.

As a *third principle* the **integrity** of information should be emphasized. Trend topics for the company, such as digitization, sustainability, innovation and cultural change should be integrated into the strategy reporting if relevant. The corporate strategy and strategic objectives should present trends that are important for the company in such a way that the addressee of the report gets a comprehensive picture of how the company wants to deal with these issues and how it will react to future developments. This can be illustrated by the formulation of appropriate strategic targets or, for example, a linked sustainability strategy, which is part of the corporate strategy. The analysis of the SDScore showed that especially, the extent, time reference and statement of achievement of strategic objectives of companies shows weaknesses in the reporting. To enhance the quality of information, the relation to trend topics of the company can be used. This could help the reporting addressee to get a holistic picture of the company. Especially prospective information play a major role in integrated reporting (Ungerer, 2013), why strategy disclosure is of importance if a company decides to report integrated.

In order to enhance the understandability of information, the disclosed information should be **accurate,** which can be seen as fourth *principle.* The corporate strategy and strategic objectives should be described as concretely as possible and comparable to the strategy reporting in previous years. The results of the study showed weaknesses in reporting, especially on this topic. For this purpose, it is necessary to provide information on the extent, changes and achievement of the strategic goals and to establish a time reference. This can take place in qualitative or quantitative form so that the financial reporting addressee has a concrete idea of the company's strategy and can evaluate the long-term development of the company.

The *fifth principle* focuses on the **clear** presentation of the strategy related information. The reporting part with strategy disclosure should be clearly identified as such and included in the corresponding content overviews. The addressee of the report must be able to find strategic information easily and quickly. A graphical presentation can underline links between strategy and strategic objectives or increase the clarity of information. In addition, clear language should be used. According to the criteria of the scoring model, the strategic objectives and corporate strategy should be named clear and in an understandable way.

5 *Discussion and Conclusion*

This study examines the extent of voluntary strategy disclosure of German publicly listed companies. As predicted by the signaling theory in the context of capital markets, voluntary disclosure seems important to reduce information asymmetry. In this respect, the question of the extent to which these companies disclose information about their corporate strategy and strategic goals in the management report is of interest. The analysis finds evidence that companies report on their corporate strategy and strategic objectives and disclose information about their business in the context of strategy. The results show that the SDScore of the largest publicly listed German companies is mediocre in all three years. It is also noticeable that the majority of companies do not significantly change their reporting on strategy. This indicates that strategy reporting will not change significantly in the coming years. The majority of the companies disclose information about their future business as well as opportunities and risks within the context of the strategy. Therefore, the category *Strategy Analysis* has the highest disclosure of all categories in the valuation model. The lowest degree and thus the lowest quality of strategy reporting can be found in the category *Strategy Control*. The results show that companies are hesitant to publish information on the concrete extent of the strategic objectives and implementation measures of the corporate strategy. Therefore, companies prefer to disclose the general business analysis in the strategic context. The risk of this disclosure policy is that investors may have difficulty identifying the important information to understand how the company will succeed in the future. In particular, strategic information without explanation of the specific implementation plan could mislead reporting addresses and investors. The findings are in general consistent with results from other studies, like Santema and van de Rijt (2001), Sieber (2011) and Padia (2012). Based on the results of this study, five principles for strategy reporting have been formulated: materiality, connectivity, integrity, accuracy and clarity. These principles can be used from practitioners and preparers of the financial report to enhance their strategy reporting as well as from investors to evaluate high quality reporting.

The results show that voluntary strategy disclosure remains an issue that companies tend to neglect. From an investor's perspective, this is an unsatisfactory finding, especially since voluntary strategy disclosure has a positive effect on the cost of capital in the shadow of empirical research (Sieber et al., 2014). Finally, our results were obtained in accordance with the specific German accounting regulations. Further investigations are necessary to examine whether this positive correlation exists for this setting. If so, there are strong arguments for the need to disclose the corporate strategy and therefore the importance of strategy disclosure may increase in the future. Ultimately, there is a need for research on how the strategy disclosure can be measured, whether the disclosure of strategy related information has an impact on the cost of capital and what determines strategy disclosure. In this context, there are several methodological research questions that should be addressed in further research.

References

ABDULLAH, M., ABDUL SHUKOR, Z. A., MOHAMED, Z. M. AND AHMAD, A. (2015), "Risk management disclosure", *Journal of Applied Accounting Research*, Vol. 16 No. 3, pp. 400-432.

ABRAHAMSON, E. AND AMIR, E. (1996), "The information content of the President's letter to shareholders", *Journal of Business Finance & Accounting*, Vol. 23 No.8, pp. 1157-82.

AMIHUD, Y. AND MENDELSON, H. (1986), "Asset Pricing and the Bid-Ask-Spread", *Journal of Financial Economics*, Vol. 17 No. 2, pp. 223-249.

AMRAN, A, OOI, S. K., MYDIN, R. T. AND DEVI, S. S. (2015), "The Impact of Business Strategies on Online Sustainability Disclosures", *Business Strategy and the Environment*, Vol. 24 No. 6, pp. 551-564.

ANSOFF, I. H. (1965), *Corporate Strategy: An Analytic Approach to Business Policy for Growth and Expansion.* McGraw-Hill. New York.

BOTOSAN, C. A. (1997), "Disclosure level and the cost of equity capital", *The Accounting Review*, Vol. 52 No.3, pp. 332–349.

BOTOSAN, C. A. AND PLUMLEE, M. A. (2002), "A re-examination of disclosure level and the expected cost of equity capital", *Journal of Accounting Research*, Vol. 40 No. 1, pp. 21–40.

BROBERG, P., TAGESSON, T. AND COLLIN, S.-O. (2010), "What explains variation in voluntary disclosure? A study of the annual reports of corporations listed on the Stockholm Stock Exchange", *Journal of Management and Governance*, Vol. 14 No. 4, pp. 351-377.

CHANDLER, A. D. (1993), *Strategy and Structure*, 18th ed., M.I.T. Press, Cambridge.

COEBERGH, H. (2011), *Voluntary disclosure of corporate strategy: Determinants and outcomes. An empirical study into the risks and payoffs of communicating corporate strategy* (Doctoral dissertation), available at: https://bradscholars.brad.ac.uk/ (accessed 15.07.2019).

COOKE, T. E. (1989), "Voluntary Corporate Disclosure by Swedish Companies", *Journal of International Financial Management and Accounting*, Vol. 1 No. 2, pp. 171-195.

CRAWFORD, V. P. AND SOBEL, J. (1982), "Strategic information transmission", *Econometrica*, Vol. 50 No. 6, pp. 1431–1451.

DIAMOND, D. W. AND VERRECCHIA, R. E. (1991), “Disclosure, liquidity, and the cost of capital”, *Journal of Finance,* Vol. 46 No. 4, pp. 1325–1359.

DYE, R. A. (2001), “An evaluation of „essays on disclosure” and the disclosure literature in accounting”, *Journal of Accounting and Economics,* Vol. 32 No. 1-3, pp. 181-235.

ELGAMMAL, M., HUSSAINEY, K. AND AHMED, F. (2018), "Corporate governance and voluntary risk and forward-looking disclosures", *Journal of Applied Accounting Research*, Vol. 19 No. 4, pp. 592-607.

ELLIOTT, R. K. AND JACOBSON, P. D. (1994), “Costs and benefits of business information disclosure”, *Accounting Horizons*, Vol. 8 No. 4, pp. 80-96.

FARRELL, J. AND GIBBONS, R. (1989), “Cheap talk can matter in bargaining”, *Journal of Economic Theory*, Vol. 47 No. 2, pp. 221–237.

FREEMAN, R. E. AND REED, D. L. (1983), “Stockholders and Stakeholders: A New Perspective on Corporate Governance”, *California Management Review,* Vol. 25 No. 3, pp. 88–106.

GLOBAL REPORTING INITIATIVE (GRI) (2016), “GRI 101: Foundation 2016”, available at: https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf (accessed 05.08.2019).

GLOSTEN, L. R. AND MILGROM, P. R. (1985), “Bid, ask, and transaction prices in a specialist market with heterogeneously informed traders”, *Journal of Financial Economics,* Vol. 14 No. 1, pp. 71–100.

GRAY, S. J., MEEK, G. K. AND ROBERTS, C. B. (1995), “International capital market pressure and voluntary annual report disclosures by U.S. and U.K. Multinationals”, *Journal of International Financial Management and Accounting*, Vol. 6 No. 1, pp. 43–68.

HEALY, P. M., HUTTON, A. P. AND PALEPU, K. G. (1999), “Stock performance and intermediation changes surrounding sustained increases in disclosure”, *Contemporary Accounting Research*, Vol. 16 No. 3, pp. 485–520.

HEALY, P. M. AND PALEPU, K. G. (2001), “Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature”, *Journal of Accounting and Economics*, Vol. 31 No. 1–3, pp. 405–440.

IFRS (2018). Conceptual Framework for Financial Reporting 2018, available at: https://www.iasplus.com/en/standards/other/framework?set_language=en (accessed 05.08.2019).

JENSEN, M. C. AND MECKLING, W. H. (1976), "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics,* Vol. 3 No. 4, pp. 305-360.

JONES, D. A. (2007), "Voluntary disclosure in R&D-intensive industries", *Contemporary Accounting Research,* Vol. 24 No. 2, pp. 489–522.

KOHUT, G. F. AND SEGARS, A. H. (1992), "The President's letter to stockholders: an examination of corporate communication strategy", *The Journal of Business Communication,* Vol. 29 No. 1, pp. 7-21.

KOLK, A. (2008), "Sustainability, accountability and corporate governance: exploring multinationals' reporting practices", *Business Strategy and the Environment,* Vol. 17 No. 1, pp. 1–15.

LANG, M. H. AND LUNDHOLM, R. J. (1993), "Cross-sectional determinants of analyst ratings of corporate disclosures", *Journal of Accounting Research,* Vol. 31 No. 2, pp. 246–271.

LANG, M. H. AND LUNDHOLM, R. J. (2000), "Voluntary disclosure and equity offerings: reducing information asymmetry or hyping the stock?", *Contemporary Accounting Research,* Vol. 17 No. 4, pp. 623–662.

LEV, B. AND THIAGARAJAN, S. R. (1993), "Fundamentals Information Analysis", *Journal of Accounting Research,* Vol. 31 No. 2, pp. 190-215.

MAALOUL, A., AMAR, W. B. AND ZEGHAL, D. (2016), "Voluntary disclosure of intangibles and analysts' earnings forecasts and recommendations", *Journal of Applied Accounting Research,* Vol. 17 No. 2, pp. 421-439.

MEEK, G. K., ROBERTS, C. B. AND GRAY, S. J. (1995), "Factors influencing voluntary annual report disclosures by U.S., U.K. and continental multinational corporations", *Journal of International Business Studies,* Vol. 26 No. 3, pp. 555–572.

MERTON, R. C. (1987), "A simple model of capital market equilibrium with incomplete information", *The Journal of Finance,* Vol. 42 No. 3, pp. 483-510.

MORRIS, R. D. AND TRONNES, P. C. (2018), "The determinants of voluntary strategy disclosure: an international comparison", *Accounting Research Journal,* Vol. 31 No. 3, pp. 423–441.

PADIA, N. (2012), "Disclosure of non-financial information on strategy in South African annual reports", *African Journal of Business Management,* Vol. 6 No. 46, pp. 11472-11479.

PORTER, M. E. (1980), *Competitive Strategy,* The Free Press, New York.

ROBBINS, S. P. AND COULTER, M. (2016), *Management*, 13th ed., Pearson, Harlow, England.

SANTEMA, S. AND VAN DE RIJT, J. (2001), “Strategy Disclosure in Dutch Annual Reports”, *European Management Journal,* Vol. 19 No. 1, pp. 101-108.

SANTEMA, S., HOEKERT, M., VAN DE RIJT, J. AND OIJEN, A. V. (2005), “Strategy disclosure in annual reports across Europe: a study on differences between five countries”, *European Business Review,* Vol. 17 No. 4, pp. 352-366.

SIEBER, T. (2011). *Strategieorientierte Berichterstattung im Lagebericht. Eine empirische Untersuchung börsennotierter Unternehmen in Deutschland* (Doctoral dissertation), Peter Lang GmbH, Frankfurt am Main, Germany.

SIEBER, T., WEIßENBERGER, B. E., OBERDÖRSTER, T. AND BAETGE, J. (2014), “Let’s talk strategy: the impact of voluntary strategy disclosure on the cost of equity capital”, *Business Research*, Vol. 7 No. 2, pp. 263-312.

SPENCE, M. (1973), “Job Market Signaling”, *Quarterly Journal of Economics,* Vol. 87 No. 3, pp. 355-374.

SPENCE, M. (2002), “Signaling in Retrospect and the Informational Structure of Markets”, *American Economic Review,* Vol. 92 No. 3, pp. 434-459.

UNGERER, M. (2013), “A comparative analysis of strategy disclosure reporting trends in South Africa in 2010”, *Southern African Business Review,* Vol. 17 No. 3, pp. 27-56.

UNGERER, M. & VORSTER, S. (2015), “Strategy disclosure reporting trends in South Africa: A 2010-2011 comparative analysis for six industry clusters”, *Southern African Business Review*, Vol. 19 No. 3, pp. 78-101.

VERRECCHIA, R. E. (2001), “Essays on disclosure”, *Journal of Accounting and Economics,* Vol. 32 No. 1-3, pp. 97-180.

WELGE, M. K. AND AL-LAHAM, A. (2012), *Strategisches Management. Grundlagen – Prozess – Implementierung,* 6th ed., Springer Gabler, Wiesbaden.

ZÜLCH, H. AND WINTER, S. (2017), „Everything except Strategy – Wege zu einer effektiven Strategieberichterstattung“, *Zeitschrift für internationale und kapitalmarktorientierte Rechnungslegung (KoR),* Vol. 17 No. 10, pp. 426-433.

Appendix

Appendix A: Data collection instrument

Strategy phase	Sub-category	No.	Description of evaluation criteria
Strategy Analysis	Economic environment	1.	Explanation of the business development in the context of the strategy
		2.	Explanation of the economic situation in the context of the strategy
	Strategic situation	3.	Assessment of the expected business development in the context of the strategy
		4.	Assessment of the opportunities and risks of the company in the context of the strategy
Strategy Formulation	Strategic objectives	5.	Naming the strategic objective
		6.	Extent of the strategic objectives
		7.	Time reference of the strategic objectives
	Corporate strategy	8.	Naming the corporate strategy
Strategy Implementation	Implementation process	9.	Explanation of the relevance of strategy in the management compensation system
		10.	Explanation of the integration of strategy in internal control system
Strategy Control	Changes in strategy	11.	Significant changes in strategic objectives compared to the previous year
		12.	Explanation of significant changes in strategic objectives compared to the previous year
		13.	Significant changes in corporate strategy compared to the previous year
		14.	Explanation of significant changes in corporate strategy compared to the previous year
	Achievement of strategic objectives	15.	Statement on the state of achievement of strategic objectives

LEIPZIG
GRADUATE SCHOOL
OF MANAGEMENT

ISSN 1864-4562 (Online version)