

The Rise of Non-financial Performance Measures in Annual Reports. An Analysis of ATX-listed Companies

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Abstract

Purpose of the article: In the past, annual reports only included financial measures. More recently, this shareholder value approach has been criticized of leading to a strategic short-term orientation. Consequently, the use of strategic performance measurement systems (SPMSs), namely the Balanced Scorecard (BSC), is proposed to communicate non-financial measures to investors and stakeholders. Besides the distribution of critical information, the disclosure of non-financial measures should strengthen the employees' commitment to the long-term strategy. The purpose of the article is thus to reveal whether Austrian companies disclose their strategic performance measures in their annual reports.

Methodology/methods: Two observation points, 2002 and 2012, were chosen to analyse the annual reports of companies listed on the ATX. This period of time allows to observe changes as well as new trends. The annual reports have been downloaded from the companies' homepages or received via email or post. A document and content analysis, followed by a frequency analysis, has been applied to identify several non-financial measures with regard to the following BSC-derived perspectives: Customer perspective, internal business perspective and innovation and learning perspective.

Scientific aim: The scientific aim of the following study is to examine the extent to which non-financial performance measures are displayed in annual reports.

Findings: The analysis of the annual reports showed a tremendous increase in non-financial measures in the time period between 2002 and 2012, which solely arose from the augmented disclosure activities of the innovation and learning perspective. On the other hand, the customer and internal perspectives decreased in importance. Moreover, the top ten measures in 2002 have changed and are dominated by diversity and environmental issues in the year 2012.

Conclusions: Similar findings in the literature as well as the influence of legal disclosure requirements are discussed. Possible limitations are the sole use of the Balanced Scorecard as a SPMS or the chosen time period of ten years.

Keywords: financial reporting, disclosure practices in annual reports, balanced scorecard, strategic performance measurement systems

JEL Classification: M10, M41

Introduction

Niven (2005, p. 23) criticises the shareholder value approach and states that many organisations fail to implement their strategies successfully because of concentrating solely on financial targets and disregarding the drivers for strategy implementation. Cost pressure and the profit maximization principle lead to a strategic short-term orientation (Müller-Stewens, Lechner, 2011, p. 623; Atkinson *et al.*, 1997b, p. 25), which in turn prevents the evaluation of strategy implementation (Kaplan, Norton, 1996, p. 3). As a consequence, Mankins and Steele (2005, p. 4) show that organisations can only translate 63% of their strategy into performance while the other 37% represent a performance loss due to the neglect of non-financial measures (*e.g.*, a poorly communicated strategy or insufficient performance monitoring).

To include both, financial and non-financial measures, and operationalize a strategy in terms of performance measures, strategic performance measurement systems (SPMSs) are proposed (Chenhall, 2005, p. 396). They not only comprise employee reward systems and goal-setting processes, but also communication mechanisms (Kaplan, Norton, 1996, p. 5; Poister, 2003, p. 10). Although SPMSs have a strong emphasis on stakeholders and consider their needs and expectations, very few studies analyse the use of an integrated model (Atkinson *et al.*, 1997b, p. 26–28; Webb, 2004, p. 952).

Concerning the disclosure of SPMSs, Kaplan and Norton (1996, p. 8) raise the question whether the Balanced Scorecard (BSC), as one of the most significant developments in management accounting (Atkinson *et al.*, 1997a, p. 94), can be used to communicate with external shareholders outside the organisation. In this regard, the BSC should not only allow managers to supervise the strategic development of their own company and predict its future financial performance, but should also be used to communicate new measures to outside investors. Therefore, as described in the approach of Eccles *et al.* (2001, p. 5), reporting the organisation's performance and value is of great interest not only for the employees, but also for the analysts and investors. This simultaneous display of performance and value should eventually help the organisation to gain an enormous competitive advantage in its respective market (Eccles *et al.*, 2001, p. 6).

Apart from the developments in the field of strategic management and accounting, international organisations and their guidelines have to be considered when examining business reporting. In 2001, the European Commission responded to the growing

trend of social responsibility and presented the green paper for "Promoting a European framework for corporate social responsibility". In this, the Commission proposed that "all publicly-quoted companies with at least 500 staff are invited to publish a "triple bottom line" in their annual reports to shareholders that measures their performance against economic, environmental and social criteria" (European Commission, 2001, p. 17). In addition, the Financial Accounting Standards Board (FASB, 2001) proposes that companies improve their business reporting by specifying measurements and voluntarily disclosing their management plans and strategies. Especially interesting for investors and shareholders are critical success factors and the metrics used to manage the operations. These metrics should then be explained in a comprehensible manner and periodically disclosed (FASB, 2001).

As shown above, there is an increasing interest regarding the display of organisational performance and how a SPMS affects external disclosure practices of organisations. Moreover, especially non-financial data are found to be necessary to make more reliable statements about the market, customers, processes and employees (Vollmuth, 2009, p. 345). Therefore, Neely (2005, p. 1272–1273) suggests further research on the measurement of intangible and tangible assets for external disclosure. As the annual report of an organisation addresses not only the shareholders but also other stakeholders, it is interesting to examine whether and how Austrian organisations have implemented non-financial measures based on their SPMS. This directly leads us to the following research question: How have strategic performance measures in the financial reporting of ATX-listed companies changed over a time period of ten years?

1. Theoretical basis

1.1 Legal disclosure requirements for public companies

To examine which performance measures companies displayed in their annual reports, it is important to know which legal disclosure requirements they had to follow. Therefore, in the following section, the requirements on the annual statements, the statement of affairs and the corporate governance report are presented.

1.1.1 Annual statements

The distribution of earnings and the tax assessment is based on the annual statements. Further, the annual statements provide an important information

function for investors, creditors, employees and other stakeholders of the company's environment. The information function is realized by the legal norm requesting a truthful view of the company, the financial situation and the disclosure requirements (Egger *et al.*, 2010, p. 19).

The legal disclosure requirements for incorporated enterprises are stated in the Austrian Commercial Code (CC). Incorporated companies have to disclose the annual statements including the statement of affairs as well as the notes and if applicable the corporate governance report. The disclosure has to take place within five months after the beginning of the business year and has to be presented to the members of the board of directors.

The annual statements are to provide a truthful view of the assets and liabilities, the profit or loss as well as the financial position of the corporation (CC, § 222). Regarding incorporated enterprises, the law requests extended annual statements including the balance sheet, the profit and loss statement as well as notes (Egger *et al.*, 2010, p. 98). These notes should reveal the accounting and valuation principles of the balance sheet and the profit and loss statement, the explanation of liabilities, the explanation regarding the balance sheet and the profit and loss statement as well as other relevant positions (CC, § 236–242, § 265–266). Thus, it is a necessary tool for complementing the balance sheet and the profit and loss account in order to grant a truthful view (Egger *et al.*, 2010, p. 429).

1.1.2 Statement of affairs

The statement of affairs as supplement to the annual statements explains the course of business including the company results and the situation of the enterprise. It also describes which basic risks and uncertainties the company faces. Further, the statement of affairs provides information about important events after the business year, the future development of the company, R&D activities, subsidiaries and the usage and risk management for financial instruments (CC, § 243–243a, § 267). The statement of affairs incorporates an information function, supports the accountability of the annual statements and is used as an advertising instrument by public companies (Egger *et al.*, 2010, p. 465).

In addition, the statement of affairs has to follow four principles: completeness, reliability, clarity and comparability. Those principles should ensure the provision of the most useful information that the addressee might need (AFRAC, 2008, p. 7). In order to describe the course of business including the business results and the situation of the company,

financial and non-financial performance indicators are used. The Austrian Financial Reporting and Auditing Committee (AFRAC) states that financial performance indicators are the common business ratios regarding performance and financial analysis. Large incorporated enterprises have to indicate and explain the most important non-financial performance indicators.

Non-financial performance indicators are not defined by law. This includes for example ecological and social aspects as stated in the Commercial Code, § 243 (5), required to understand the course of business, business results and the situation of the business (AFRAC, 2008, p. 15). The requirement to include environmental and employee issues in the statement of affairs was initiated by the modernisation directive of the European Union as stated in amendment of article 46. This amendment was implemented into Austrian Law in 2004 and is stated in the CC, § 243 and § 267 (IOEW, 2008, p. 12).

AFRAC (2008, p. 15) further provides a non-exhaustive list of non-financial performance indicators such as fluctuation, employee education, motivation, employee performance, organisational benefits, health and work safety, annual profit share and other benefits. Other indicators supporting the business activities are for example customer development, average turnover per customer, average turnover regarding the sales area, or order situation. However, in the statement of affairs, only the most essential measures have to be disclosed (IOEW, 2008, p. 6).

It has to be mentioned that the annual report is disclosed voluntarily by the companies and poses an important source of information for the stakeholders. Nevertheless, the disclosure of the annual statements, the statement of affairs and the notes is obligatory. However, usually the annual report contains some positive profiling of the company as well as the annual statements and the statement of affairs (IOEW, 2008, p. 5).

1.1.3 Corporate Governance Report

The corporate governance report includes the corporate governance codex accepted in the country where the corresponding stock exchange is located and the public access possibilities for the codex. Moreover, the composition and method of operation of the management board and the supervisory board, as well as the action taken for women support in these boards and in managing positions are part of the corporate governance report (CC, § 243b). Public companies, that meet the requirements for trading their shares at the regulated market, according to the Stock Exchange Act, § 1 (2), have to disclose

a corporate governance report (CC, § 243b). The Wiener Börse AG's markets, comprising the official market and the second regulated market, are regulated markets according to § 1 (2) Stock Exchange Act (Wiener Börse, 2013).

Listed companies have to follow the Transparency Directive as stated in the Stock Exchange Act § 82 (4). This implies different time limits and disclosure requirements. When the business year ends, the annual financial report has to be published within four months at the latest and public access has to be ensured for at least five years. The annual financial statements contain the audited annual statements, statement of affairs and explanation of the legal representatives that the annual statements and the statement of affairs provide a truthful view of the company (Egger *et al.*, 2010, p. 103).

After enumerating the legal disclosure requirements, this following section will briefly address the role of SPMSs in external disclosure practices before focussing on the BSC.

1.2 Performance implications of SPMS

Traditionally, financial measures have been used to assess the performance of an organisation. However, due to the growing complexity of the organisations and markets, developments such as globalization, new technologies, and demography are fundamentally reshaping the business world (De Waal, 2007, p. 9). As a consequence, instead of using traditional cost-based measures, performance measures should reflect the goals of the organisation from a dynamic point of view (Kennerley, Neely, 2002, p. 1223).

The SPMS is used for the communication, formulation and reformulation of the organisation's strategy and supports its execution and control (Gimbert *et al.*, 2010, p. 480). As they further state, main characteristics include the integration of the long-term strategy and operational goals, a cause-effect linkage between goals and performance measures as well as a sequence of goals-metrics-targets-action plans. At its core, SPMS connects the development and formulating process of the organisation's strategy with the overall implementation process (Kaplan, Norton, 1997, p. 184).

Micheli and Manzoni (2010, p. 465) provide an overview of the benefits, limitations and paradoxes of strategic performance measurement. The authors state that the design of an SPMS and the definition of its role are critical factors for the achievement of the strategic goals. The design of the SPMS in turn is strongly affected by several factors such as the organisation's environment, its strategy, stakeholders and organisational culture. Given those

prerequisites, a SPMS should contribute substantially to the organisation's performance.

Empirically, this link between the effectiveness of SPMSs and the organisation's performance has been found in several studies. Ittner *et al.* (2003, p. 738) used data from 140 US financial services firms and found that organisations with a large set of financial and non-financial measures receive higher stock returns. Webb (2004, p. 925) showed that the implementation of a SPMS leads managers to act according to the organisation's strategy and that the cause-effect structure of an SPMS influences the goal commitment of the managers. In another study, Gimbert *et al.*'s findings (2010, p. 477) reveal that the use of an SPMS leads to a more comprehensive strategic agenda, reflecting a higher number and variety of decisions for each strategy formulation, as well as a higher frequency of strategy (re)formulation. Through this (re)formulation process of intended strategies, by means of strategic agendas, it was found that SPMSs impact performance (Bisbe, Malagueño, 2012, p. 297).

Some well-established SPMSs are for example the Balanced Scorecard (BSC), the Performance Prism or the EFQM Model. The following sections will concentrate on the BSC, as it supports the organisation when implementing a strategy and allows the strategy itself to develop in case the company's environment (*e.g.*, competitor, market, technology) is changing (Kaplan, Norton, 1996, p. 13).

1.3 Balanced Scorecard

As one of the most popular strategic performance measurement instruments, the BSC provides the theoretical basis for non-financial reporting in this study.

Kaplan and Norton's work was essential for the development of the BSC (Müller-Stewens, Lechner, 2011, p. 597). According to them, the BSC enables the gathering of complex business information in a short and concentrated way (Kaplan, Norton, 1992, p. 71). On the one hand, it shows the financial measures of the past and, on the other hand, it shows operational measures which are responsible for the future financial success. The operational measures include customer satisfaction, the internal processes, and the innovation and improvement activities of the organisation.

The first perspective is the financial perspective and sets the focus on how the organisation is perceived by the shareholders. Second, the customer perspective refers to the question of how the customer sees the organisation. Third, the internal perspective deals with the question at what to excel. The last perspective is the innovation and learning perspective,

asking if the organisation can continue to improve and create value. Consequently, the BSC is an instrument which forces managers to concentrate on the most critical measures (Kaplan, Norton, 1992, p. 72–73). In the following sections, the four perspectives are described in detail.

1.3.1 Financial perspective

The company's strategy, the implementation and the processing have to contribute to the financial outcome, also known as the bottom line. Most financial measures deal with profitability, growth and shareholder value. Those measures are very often cash flow, sales growth within a period, operating income by division, increased market share by segment and ROE (return on equity). The already mentioned weaknesses, the backward-looking focus and inability to depict current value-creating actions, of financial measures are also true for the BSC. Moreover, some criticism leads to the assumption that financial measures may not be absolutely necessary, as properly conducted operational actions eventually lead to financial success. However, according to Kaplan and Norton (1992, p. 77), a financial control system prevents the organisation from missing certain key performance aspects which are not visible in operational measures. Furthermore, managers tend to become inert after achieving operational excellence. Therefore, organisations should specify how the operational improvements (quality, cycle time, new products) lead to higher market share, operating margins, turnover and reduced expenses. The financial perspective provides the linkage between the BSC and the shareholder value management, which comprises cost reduction, improved asset productivity and revenue growth (Kaplan, Norton, 2001, p. 156).

1.3.2 Customer Perspective

Most of the companies focus heavily on customer satisfaction as it is essential for success. The customer perspective can be divided into 4 categories: time (*e.g.*, order till delivery time), quality (*e.g.*, rate of defective products), performance and service (*e.g.*, contribution to value creation), and cost. Kaplan and Norton (1992, p. 73) first recommend to articulate goals for these four categories before translating them into measures. However, the organisation should keep in mind all different sorts of costs (*e.g.*, price, opportunity costs). If the organisation charges a higher unit price, but has an excellent scheduling, delivery service and quality, the company can be, nonetheless, a low cost supplier for its customers (Kaplan, Norton, 1992, p. 74).

1.3.3 Internal Business Perspective

In order to satisfy the customer's expectations, the organisation has to improve, adapt or introduce measures, processes and actions internally. In this regard, the organisation should especially keep an eye on internal factors that help to satisfy the customer's needs, as for example the cycle time, quality, employee skills or productivity. Additionally, Kaplan and Norton (1992, p. 75) recommend to identify the organisation's core competencies and the critical technology that is necessary for ensuring the market position. The organisation has to decide in which competencies and processes it wants to excel (*e.g.*, manufacturing excellence, low cycle time) and define measures for it. For this, an appropriate information system is crucial as possible deviations from the objectives have to be identified.

1.3.4 Innovation and Learning Perspective

As the business world and the organisation's targets for success are constantly changing, the organisation has to improve and adapt its products and activities steadily. An organisation needs to be able to introduce new products, create value for customers and improve operational activities in order to enter new markets. Managers should keep an eye on the percentage of sales from new products, the defect rate and continuous improvements (Kaplan, Norton, 1992, p. 76–77).

Overall, the BSC allows an organisation to foster cross-functional integration, customer-supplier partnerships, global scales, continuous improvement and team accountability. At its core, the BSC helps to understand interrelationships (Kaplan, Norton, 1992, p. 79). The employees' ability to learn and grow leads to a higher process quality, which results in a higher number of satisfied customers. Following this logic the first perspective, the financial one, can be met or even improved. In addition, the four perspectives can be adopted for the specific characteristics of each organisation (Müller-Stewens, Lechner, 2011, p. 598).

Figure 1 shows the BSC with its interrelationships between the four perspectives, as well as the vision and strategy of the organisation.

Apart from a deeper understanding of the interrelationships between the four perspectives, another advantage of the BSC includes its focus on the organisation's vision. In addition, the BSC allows the organisation to connect the financial objectives with its strategic goals. Ideally, by integrating strategic planning into the budgeting process, the organisation's budget supports the organisation's strategy (Kaplan, Norton, 1996, p. 10). This forces the

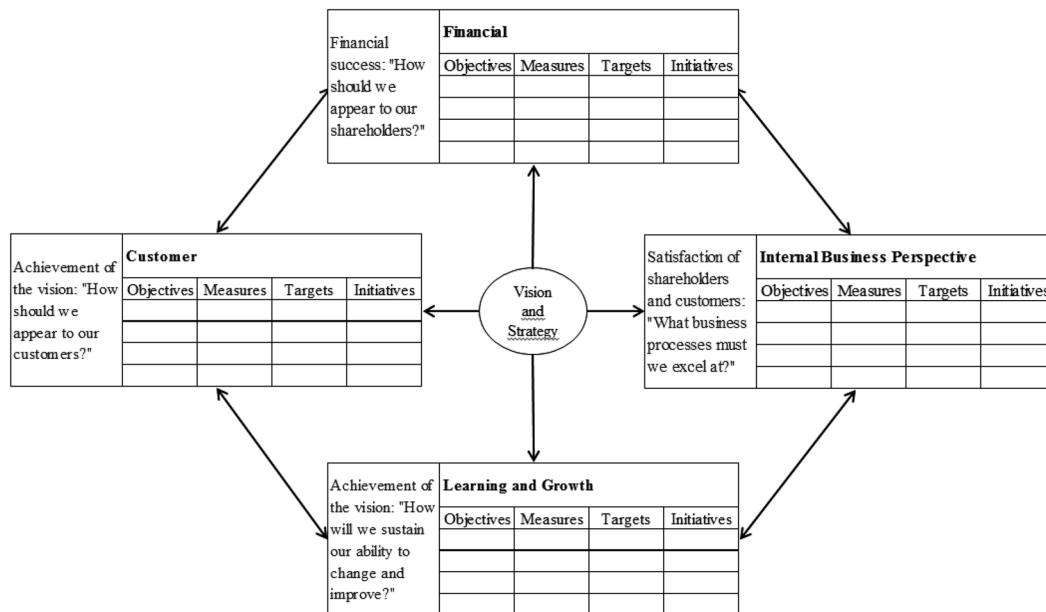


Figure 1. Four perspectives of the BSC. Source: Kaplan, Norton (1996, p. 4).

managers to define and articulate their understanding of the agreed strategy. In particular, the managers are urged to come to a consensus and translate the vision into measures that can be easily communicated (Kaplan, Norton, 1996, p. 6–7).

In terms of shareholder returns, it can be shown that organisations which adopt the BSC significantly outperform organisations which do not adopt the BSC (Crabtree, DeBusk, 2008, p. 8). Furthermore, the BSC is an effective tool for improving the financial performance of bank branches compared with banks not using the BSC (Davis, Albright, 2004, p. 153). Similarly, a positive association between the use of a BSC and the organisation’s performance can be found (De Geuser *et al.*, 2009, p. 93; Hoque, James, 2000). As a successful example of a BSC implementation, Kaplan and Norton (1996, p. 8) present the case of the Swedish company Skandia, which published, as supplement to its annual report, a so-called “business navigator” communicating their strategy and the strategic measures for the company’s performance.

As a limitation, several authors criticize that the BSC does not represent the interests of all stakeholders (*e.g.*, competitors) (Neely *et al.*, 1995, p. 97; Kanji, 2002, p. 717; Striteska, Spickova, 2012, p. 5) and incorporates rather top-down performance measurement (Kanji, 2002, p. 717). However, the BSC is widely accepted due to the adaptable design

and its format, which is appropriate for reporting (Gladden, 2001, p. 396). It also enables the organisation to adapt a holistic view (Kanji, 2002, p. 717), provides a framework for strategy implementation and enables a strategy to react to changes of the organisation’s environment (Kaplan, Norton, 1996, p. 13).

2. Empirical study

As the literature shows, traditional financial measures are not sufficient any more. Instead, a balance between financial and non-financial measures, in form of an SPMS, is proposed. The following empirical study reveals which non-financial measures, derived from respective SPMSs, are commonly used and communicated externally by ATX companies.

2.1 Methodology

In the literature, one can find support for an analysis of reporting practices by considering annual reports (Williams, 2001, p. 192; Gray *et al.*, 1995, p. 47; Beresford, Cowen, 1979, p. 15). An annual report is a widely spread public document over which the company has full control regarding editorial issues and the disclosure of information (Campbell, 2000, p. 85). In this regard, the annual reports of the ATX companies are considered as standardized artifacts

(Wolff, 2012, p. 503), and are examined via a document analysis.

Besides the document analysis, a content analysis, defined as a systematic processing of communication material (Mayring, 2012, p. 468) has been applied. Qualitative content analysis is characterized by the guidance of rules as well as the embedding in communication and quality criteria. For this study, a structured content analysis has been applied including theory-derived categories, which have been confirmed in a second inductive building approach. The setting of the qualitative analysis provided the basis for a quantitative content analysis. Finally, a frequency analysis according to Mayring (2007, p. 13) has been applied to measure the frequency of the category characteristics. This choice of analysis allows examining data in a longitudinal study, which is available in a periodical form as for example annual reports. Moreover, it is possible to execute the research question on a collective level (*e.g.*, organisations). Another advantage is that, due to the analysis of already existing data, the question bias is rather small (Baumgarth, Eisend, 2009, p. 154–155).

In general, the author of an official document such as an annual report, tries not to give too many instructions and at the same time wants to prevent a complete interpretation of the text by the reader (Wolff, 2012, p. 510). Therefore, the reader should be aware of the room for interpretation intended by the author. As a counter-initiative, Wolff (2012, p. 512) recommends to consider formalities of the documents such as layout, colour, categories used or sequences. The underlying analysis of the annual reports in this

study followed this recommendation and marked the measures found with a particular code. Therefore, not only the content but also formal aspects, as well as latently expressed aspects, have been analysed.

In the following study, only the three non-financial categories of the BSC – namely “customer perspective”, “internal business perspective” and “innovation and learning perspective” have been taken into account. The reason is the mandatory aspect of financial disclosure of annual statements. Therefore, the financial perspective does not include any form of stakeholder communication, which is assumed as the most important factor of change in this study. Categories have thus been generated from the annual reports and the BSC.

2.2 Sample

The sample consists of all companies listed on the ATX. No differentiation has been made during the selection process, as the number of ATX companies is limited to 20. For the analysis two time frames have been chosen. The first sample contains the annual reports of the ATX companies in 2002 and the second sample includes the annual reports of the ATX companies ten years later in 2012. Thus, the analysis comprises 40 annual reports. The observation points in 2002 and 2012 were chosen for several reasons. Firstly, the study claims actuality, which is why the latest annual reports available were chosen reviewing the business year 2012. Secondly, at the time considerable interest for this topic evolved, as for example the European Commission (2001, p. 17) and the Financial Accounting Standards Board

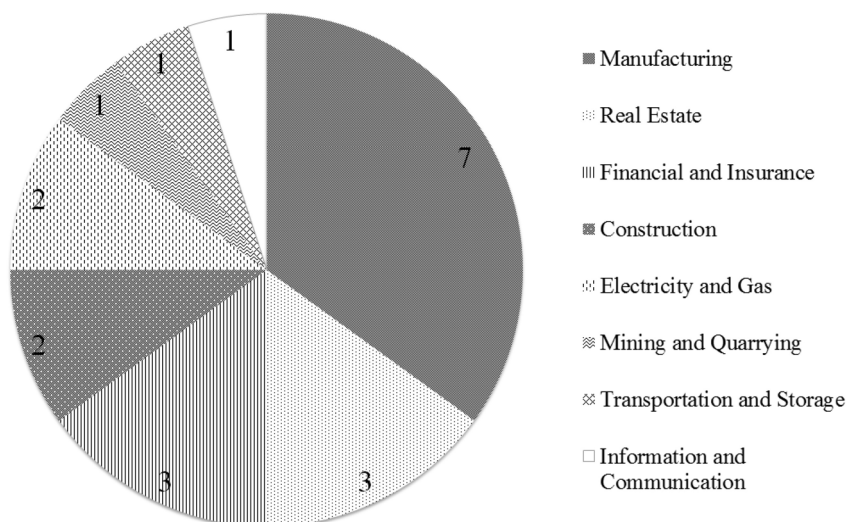


Figure 2. Industry classification of ATX companies. Source: Own diagram.

(FASB, 2001) proposed the disclosure of all performance measures. Thirdly, after a period of ten years, changes as well as new trends might be observed.

The material was generated by downloading the annual reports from the companies' homepages and by receiving them per email or post. For the business year 2012, all annual reports were available on the corresponding homepages. Some reports from the year 2002 were also available on the homepages, though most of them were requested per email. In some cases, the company was not yet listed in 2002 and the reports were only available in form of a hard copy. In total, two annual reports of the year 2002 could not be retrieved and another one is missing as the company was incorporated in another form as it exists now. Therefore, the study was conducted on the basis of 17 annual reports from 2002 and 20 annual reports from 2012.

Figure 2 shows that 50% of the sample belongs to the manufacturing and to the real estate industry. The manufacturing industry accounts for 7 companies, the real estate and the financial and insurance industries are both represented by three companies. Two companies are from each the construction and electricity and gas industries. Each of the mining and quarrying, transportation and storage as well as information and communication industries contains one of the companies.

3.1 Results

In the following Figure 3, the results of the annual report analysis will be presented. First of all, the number of published non-financial measures in-

creased by 44% from 153 measures in 2002 to 221 measures in 2012.

More specifically, Figure 4 shows the development of the measures within the non-financial BSC categories over the last 10 years. The innovation and learning perspective increased tremendously in importance, from 73 measures in 2002 to 151 measures in 2012. However, the internal perspective decreased by 12%, from 68 measures in 2002 to 60 measures in 2012. Likewise, the customer perspective experienced a decrease of 17%, from 12 measures to 10 measures in the last 10 years. Thus, the previously reported increase in the overall non-financial measures is based on the immense increase in measures belonging to the innovation and learning perspective. However, it has to be mentioned that the innovation and learning perspective contained by far the most predefined measures.

Further, Figure 5 shows the frequency of the top 10 measures in 2012 in comparison with their relevance 10 years before. In 2002, the measure "growth" was clearly the most frequent published measure followed by "employee training" and "R&D". The frequency of the reported measures was 24, 14 and 13. The measures "market share" and "employee accidents" are at the end of the top 10 measures with 7 and 6 indications respectively. However, it has to be mentioned that "pile of orders" is equivalent to "employee accidents".

In the year 2012, the most published measure was "employee diversity" with 33 counts. It has to be mentioned that gender as well as diversity measures are subsumed under "employee diversity". If

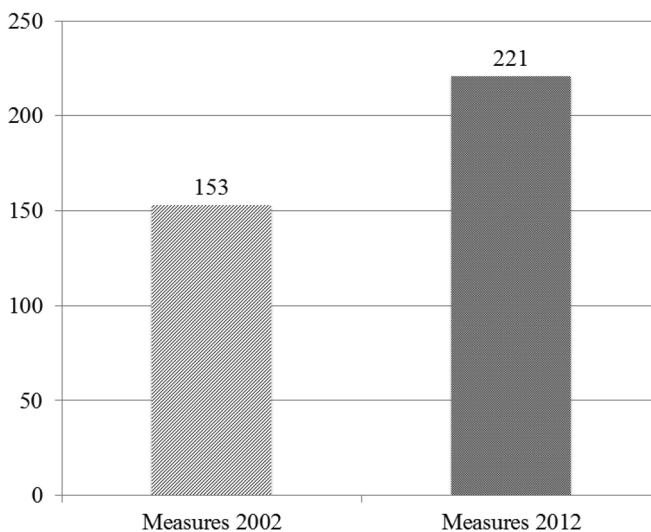


Figure 3. Number of non-financial measures in comparison. Source: Own diagram.

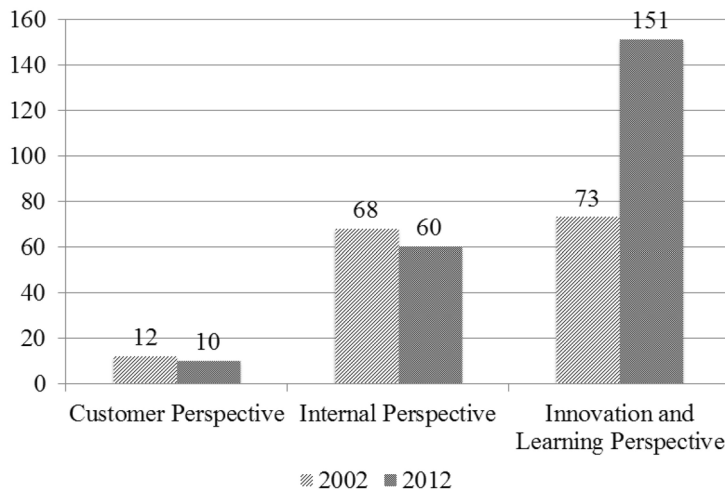


Figure 4. Development of the measures within the BSC perspectives. Source: Own diagram.

considered separately, diversity accounts for 19 measures and gender for 14. However, in 2002, diversity only accounted for 7 and gender for 2 measures, totalling to 9 measures for “employee diversity”. In 2012, the measure “employee diversity” is followed by “environmental improvements” with 25 reported measures. The measure “growth” reached 23 indications, followed by “R&D” and “employee training” with 18 measures each. The measures “capacity/production” and “employee productivity” reached 9 and 8 indications. The top 10 measures in 2012 conclude with “social improvement”, “employee accidents” and “pile of orders” with 7 measures each.

The highest change in the growth rate regarding the percentage share can be seen with the measure “social improvements”, followed by “employee diversity” and “environmental improvements”. In absolute numbers, especially the measures “employee diversity” and “environmental improvements” grew outstandingly, by 24 and 15 respectively. They even outrank the top measure of the year 2002. The other changes range between one and 6 measures. All measures increased, except “growth” and “capacity/production”, which decreased by one and two measures.

Regarding the order of the measures, there are several changes between 2002 and 2012. In 2002, the

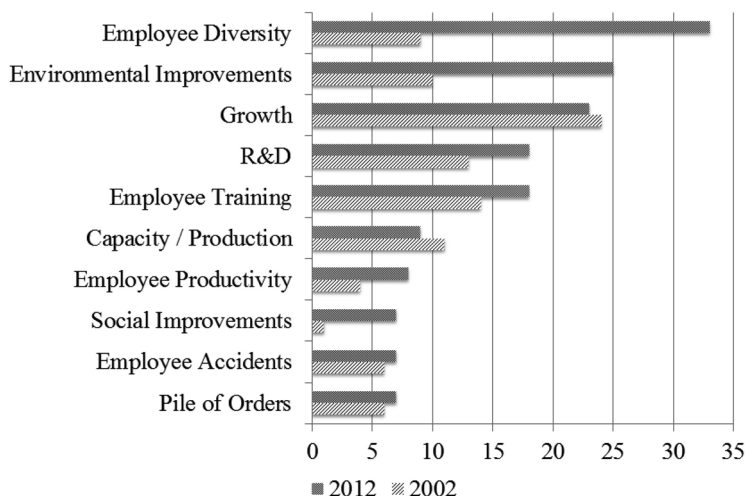


Figure 5. Top 10 measures of 2012 in comparison with 2002. Source: Own diagram.

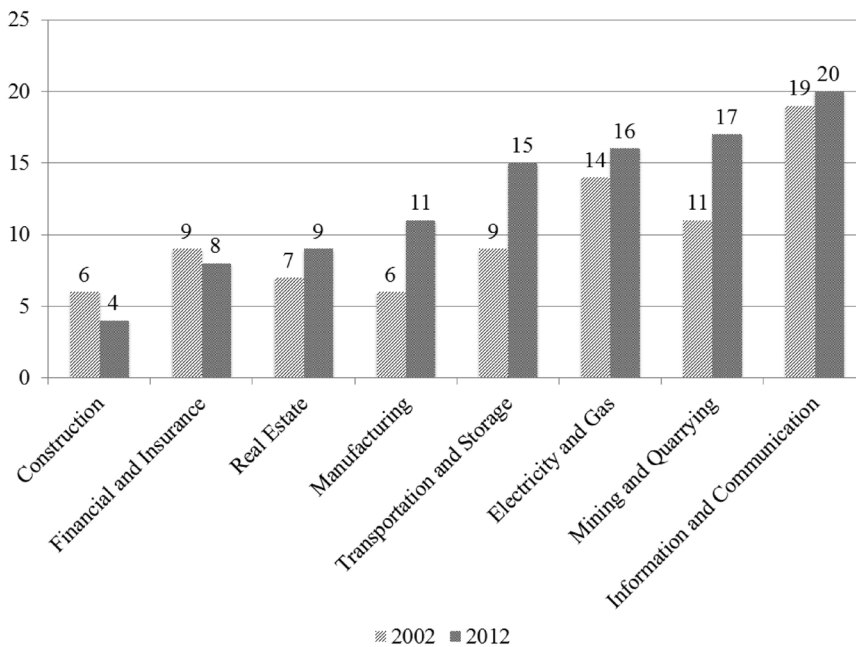


Figure 6. Development of measures by industries. Source: Own diagram.

measure “R&D” was in third position behind “employee training”. However, in 2012 “R&D” became more important and displaced the measure “employee training”, ranging now right after the measure “growth”. The measures “employee productivity” and “social improvements” did not reach the top 10 in the year 2002, signalling the growing importance of these measures in 2012. On the other hand, the measures “operational effectiveness”, “additional value for customer” and “market share” dropped out of the top 10 list in the year 2012.

Furthermore, it could be shown that some industries disclosed more measures than others. Figure 6 illustrates which industry reported the most non-financial measures as well as respective changes. The average number of measures has been taken into account, as the industries did not contain equal numbers of companies and the two observation points did not include the same number of annual reports.

It can be seen that almost all industries increased their financial reporting behaviour. The leading industry is the information and communication industry with 20 reported measures in 2012. This is followed by the industries of mining and quarrying and electricity and gas with 17 and 16 measures respectively, as well as transportation and storage with 15 measures. The construction industry reported the lowest number of non-financial measures with only

4 measures. Together with financial and insurance activities they represent the only industries that reduced its non-financial disclosure activities from 6 to 4 and 9 to 8 respectively. Regarding the change in percentage, the manufacturing industry experienced the highest increase between the two observation points, followed by the transportation and storage industry. In absolute numbers, the transportation and storage industry, the manufacturing industry and mining and quarrying experienced the greatest change.

4. Conclusion

This paper discusses SPMSs, with a focus on BSC, and their influence on the financial reporting of Austrian companies listed on the ATX. The disclosure of financial measures in the company’s annual report has been established for a long time. This is not the case for non-financial measures, which are demanded by more and more stakeholders. Consequently, the work analysed the change in disclosure practices regarding strategic measures.

The results of the study reveal that more than 80% of the companies use an SPMS comprising financial and non-financial measures. Moreover, there was a tremendous increase in non-financial measure disclosure during the years of 2002 and 2012.

Nearly 20 years ago, Wallman (1995, p. 90) already proposed new areas of information disclosure and analysis. However, it seems that only due to the modernization directive, those measures experienced increased attention. In his commentary, Wallman predicts that rapid changes in the business world will make the financial accounting authorities miss some important developments. As a consequence, the development of a dynamic and analytical framework considering strategy changes, the relationship between the organisation and its stakeholders and financial tools, is recommended.

Furthermore, Wallman (1995, p. 90) points out that traditional cost accounting methods are insufficient to measure a number of assets with increased importance (e.g., intellectual property or human assets). Therefore, it could be argued that “with the emergence of the knowledge-based and innovation-driven era, today’s companies increasingly rely on intangible assets” (Arvidsson, 2011, p. 277). Arvidsson further predicts that in the future, stakeholders and stock-market actors will demand more information on non-financial measures.

When having a closer look at the categories, one can see that the increase solely arose from the augmented disclosure activities of the innovation and learning perspective. Within this category, “employee diversity”, “environmental improvements”, “R&D” and “employee training” were the most reported non-financial measures. Those are the top 4 measures in 2012. Compared with the top measures of 2002, “growth” was the leading indicator followed by “employee training”, “R&D” and “capacity/production”. In 2002, “employee diversity” only ranked 6th in the top 10 measures. On the one hand, the greater demand for environmental information could be explained by the appearance of more socially and ethically oriented investors (Berthelot *et al.*, 2003). On the other hand, the environmental performance of a company can be used as a competitive advantage (Porter, Van der Linde, 1995) and fulfil a potential uncertainty-reducing role (Campbell *et al.*, 2003).

Another explanation of the immense increase in the “employee diversity” and “environmental improvements” measures is the modernisation principle of the EU in 2003. It stated that non-financial measures, and especially environmental and employee issues, have to be indicated, if appropriate, in the statement of affairs. This directive came into force in Austria in the year 2004. In the meantime, as one can see in the results, this directive has been well established and most companies report on those issues, although the legal definition is very vague. Thus, it could be assumed that, due to the increased legal focus on employee and environmental issues, the companies increasingly add more of these measures into their strategic performance measurement systems.

Interestingly, our results show that the companies reduced their reporting activities regarding the internal and customer perspective. This implies that companies got more cautious about what to publish, especially regarding their internal processes. One could further argue that the neglect of internal processes in the annual report leads to a lower commitment of the employees to the company’s long-term strategy, resulting in a loss of competitive advantages. Therefore further studies are necessary to test these findings in accordance with internal change management projects.

Of course, the underlying work also has some limitations. First of all, some companies were not listed at the Stock Exchange in the year 2002. This means either the annual report of 2002 was not available or the reporting behaviour changed because of the listing. This might have an influence on the number of reported non-financial measures. Another time frame, other than 10 years, could have been applied or the years between the two observation points could have been analysed. Furthermore, a point of criticism could be the use of the BSC structure to identify measures. Although the measures found in the analysis were allocated precisely and logically, an alternative theoretical SPMS would provide different perspectives.

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