# A STUDY ON THE DEGREE OF ADHERENCE OF PUBLICLY OWNED OR PRIVATELY OWNED COMPANIES TO BALANCED SCORECARD'S CHARACTERISTICS

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**ABSTRACT**
Some researchers, like Kaplan and Norton, argue that the balance between short and long-term decisions may be solved by using management tools that bring balance between financial and non-financial aspects in the company, which, in both researchers' view, is BSC's main virtue. This study seeks to identify if that tool characteristics are more adherent to public companies than to private companies. The problem was investigated through a research involving executives from 77 companies with annual revenues above R$10 million. The results indicate that BSC's characteristics are more adherent to public companies than to private companies, prevailing the financial aspects.

**KEY WORDS:** Balanced Scorecard, Strategic Planning, Performance Measurement System, Performance Management, Capital Markets.

# 1 INTRODUCTION

Capital markets are in a continuous evolution process, mainly in developed economies. According to Weimer and Pape (1999), in 1995, the total market value of companies traded at Anglo-Saxon's[1] stock exchanges was 82,1% of its Gross Domestic Product (GDP). In Latin countries[2], these values added represented 27,3% of their GDP; in Germanic countries[3], the proportion comprehended 41,7%; finally, in Japan, the proportion was 83,5%. In absolute numbers, however, Anglo-Saxon's capital markets were bigger than the sum of all other capital markets mentioned (WEIMER; PAPE, 1999).

Many companies, possibly moved by eagerness to present good quarterly results to their stockholders, have been managed with too much reliance on financial measures, giving thereby little attention to non-financial measures (JOHNSON; KAPLAN, 1987). Criticism on excessive reliance on financial measures, however, is not recent, and has already been pointed out by John Dearden in 1969[4], for instance.

Dearden criticized a performance management tool known as the "DuPont system". DuPont company, the creator of the "DuPont system", was originally established in the USA in the beginning of the XIXth century as a gunpowder factory. The "DuPont system" was created in the beginning of the XXth century, when the company was diversifying its product lines and was trying to decentralize its management (DUPONT, 2005).

Dupont's performance management tool basically focused on maximizing Return On Investments (ROI) at all hierarchical levels and business units. Dearden (1969, p.124) stated, "… almost every major decentralized company today[5] uses some adaptation of it[6]". The author alerted that excessive focus on ROI could lead a company to a short-term vision, thus leading it into taking short-term decisions, thereby sacrificing long-term sustainability. An example mentioned by Dearden (1969) is the acquisition of two assets, one with high obsolescence risk (for example, electro-electronic equipments), and the other with low obsolescence risk (for example, a commercial real estate). According to "DuPont system", the low-risk asset would have to earn the same return as the high-risk asset.

The idea supporting maximization of ROI may be based on theories of capital markets. Ross, Westerfield, and Jaffe (1995) explain that according to those theories, a company's market value increases whenever it invests in projects or assets with ROI greater than its Weighed Average Capital Cost (WACC). The market value might also increase when projects or assets with ROI below the company's WACC are sold out.

After Dearden's (1969) article, other mechanisms similar to the "DuPont system", essentially focusing on shareholders satisfaction, emerged in

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[1] USA, UK, Canada, and Australia.
[2] France, Italy, Spain, and Belgium.
[3] Germany, Netherlands, Switzerland, Sweden, Austria, Denmark, Norway, and Finland.
[4] See Dearden's (1969) article.
[5] Consider today as the year of 1969.
[6] The "DuPont system".

the USA. In the beginning of the 1990's, for instance, Stewart III (1991) proposed a new performance management tool called Economic Value Added (EVA). According to Stewart III, in order to maximize a company's performance, financial incentives should be tied to EVA's[7] maximization.

Stewart III's performance management tool is also likely to be based on capital market theories, since the author stated that, "If nothing else, a greater value rewards the shareholders who, after all, are the owners of the enterprise" (STEWART III, 1991, p.1). Perhaps the author should have considered that the quest for maximizing solely financial measures might stimulate short-term decisions, which are not always sustainable in the long run.

In 1995, another performance management tool, quite similar to EVA, appeared. That tool, created by Copeland, Coller, and Murrin (1995), is called Value Based Management (VBM). Its main performance measure is the EP (Economic Profit), which has almost the same formula as EVA[8]. Perhaps the only difference between EVA and EP is terminology. While Stewart III (1991) uses the term "ROI" to designate return on investments, Copeland, Coller, and Murrin (1995) use the term "ROIC" (Return On Invested Capital).

VBM, in a similar way as EVA and "DuPont system", also focuses on shareholders value creation, since VBM's authors state that "Beneath the techniques and methods we present lies the belief that maximizing shareholder value is or ought to be the fundamental goal of all businesses" (COPELAND; COLLER; MURRIN, 1995, p.3).

The propagation of performance management tools like "DuPont system", EVA, and VBM points out to a shareholder value maximization culture in North-America, since this same trend was not observed in authors from countries other than the USA. Also, as already shown, Weimer and Pape (1999) point out that the country with the largest capital market is by far the USA. Copeland, Coller, and Murrin (1995) also confirm that North-American culture is turned to shareholder value creation. Those authors also state that the mentioned trend is not observed in Europe and Japan.

In the context of critiques towards performance management mechanisms, based uniquely on financial measures, a new tool, called Balanced Scorecard (BSC), arose. The authors, Robert Kaplan and David Norton, departed from the premise that management of companies relying solely on financial measures was leading them to short-term attitude, based on short-term vision. For instance, managers receiving variable income tied uniquely to financial measures and value creation may not invest (or even disinvest) in promising research projects, in order to increase their company's quarterly financial statements (KAPLAN; NORTON, 2000).

BSC's authors proposed their performance measurement tool in order to provide a solution to short-term vision, which comes as a consequence of exclusive reliance on financial measures. One of BSC's core concepts is to provide balance between financial and non-financial measures. Kaplan and Norton (1996) sustain this balance is necessary, since financial measures lead to short-term decisions, whereas non-financial measures lead to long-term sustainability.

[7] EVA = [(ROI – WACC) x Invested Capital]
[8] EP = [ROIC – WACC) x Invested Capital]

BSC was therefore created in order to draw attention to non-financial performance, precisely in the country with the biggest capital market, as well as with a cultural characteristic of strong focus on stockholders, like USA. Otley (1999) confirms that statement, claiming that BSC seeks to provide a solution to the problems caused by public companies' excessive focus on financial measures. According to Otley, public companies' excess focus on financial statements would be a consequence of excessive focus on value creation to shareholders, which, according to the author, is a strong characteristic of North-American culture.

We therefore believe that BSC's characteristics are associated to public companies cultural characteristics.

Strategic Planning, on the other hand, was created around 1965 (MINTZBERG, 1994). Igor Ansoff, the father of this tool, would have affirmed that, if an enterprise focuses on itself and not on the market, it soon loses direction, and, as a consequence, does not sustain itself in the long-term. According to that author, long-term sustainability is a consequence of a company's commitment with long-term goals, as well as commitment to the social and the political environments (OBITUARY…, 2002).

Strategic Planning, in spite of having been created in the USA, does not place stockholders and financial statements as its top priority. Instead, it focuses on commitment with long-term targets, as well as with social-political environment. Contrast between Strategic Planning's philosophy and BSC's, EVA's and VBM's philosophy is thus clear. Data collected by this study does not allow us to determine why Strategic Planning's philosophy contrasts with other tools created in the same country. We believe, however, that Igor Ansoff's soviet origin, who according to Obituary… (2002) emigrated to the USA as a child, is associated to Strategic Planning characteristics. Therefore, Ansoff's vision might have been influenced by cultural values other than the creators of BSC, EVA, and VBM, all of them with Anglo-Saxon background.

The research question stems from evidence, available in scientific literature, indicating BSC might be associated to publicly owned companies cultural characteristics. Therefore, the research question on which this study is based is: **May a company's ownership, public or private, account for a better or worse adherence of Balanced Scorecard to an enterprise?**

In order to reach the proposed objectives, this study will make a comparative analysis between public and private companies, seeking to verify if Balanced Scorecard characteristics adhere better to one or to another kind of ownership.

## 2 LITERATURE REVIEW

### 2.1 The Balanced Scorecard

The first article referring to BSC was published in 1992 by Kaplan and Norton. At the time, the tool's concepts were more primitive than nowadays. In that article, the authors proposed to group performance measures into four different perspectives, which are: (a) Financial, (b) Clients, (c) Internal Processes, (d) Learning and Growth.

When the first book was published, in 1996, the authors introduced the idea of cause-effect relationships to Balanced Scorecard. The authors explain that cause-effect relationships are like "if-then" relationships. For instance, <u>if</u>

employees are better trained, then customer satisfaction will increase (KAPLAN; NORTON, 1996).

The authors, in that book, state that performance measures must be aligned to strategy. The book, however, does not make it clear whether cause-effect relationships apply only to strategic objectives (for instance, “increase customers satisfaction”), or if they also apply to performance metrics (for instance, “customer satisfaction rate”) as well. This statement is based on the fact that the mentioned relationships are described for both strategic objectives (KAPLAN; NORTON, 1996, p. 159), and performance measures (p. 167).

Strategy Maps concepts came up only after the publication of the second book.

**Strategy Maps**

Strategy Maps should describe a company’s strategy through cause-effect relationships between strategic objectives, creating, thereby, relationships based on hypotheses. For instance, “if we improve our turnaround time, we then will reduce operational costs”. Therefore, the strategic objective to “improve turnaround time” would be the cause of the “reduce operational costs” strategic objective. A good Strategy Map should describe the process of transforming intangible assets into tangible financial results (KAPLAN; NORTON, 2000).

The main difference between the 1996’s scorecard and the 2000’s Strategy Map is the fact that the latter should depart from an overarching objective (fulfil shareholders’ expectations), cascading down into other strategic objectives. Thus performance measures are not shown in Strategy Maps, but are associated to strategic objectives in separated spreadsheets (KAPLAN; NORTON, 2000).

**Focus on shareholders**

An analysis of Kaplan and Norton’s publications demonstrate that BSC is focused on fulfilling shareholders’ expectations.

In the beginning of Kaplan and Norton’s second book, the authors sustain that traditional performance measurement systems were excessively focused on financial metrics, and that such focus would eventually lead company managers into nearsightedness of their businesses’ vision, which would lead managers into making decisions based on short-term financial aspects. According to Kaplan and Norton (2000, p.3), the mentioned attitude makes those companies pay little attention to non-financial aspects, which are associated to long-term sustainability and value creation.

Despite supporting the importance of non-financial measures, Kaplan and Norton define financial aspects as a company’s ultimate goal. According to BSC’s authors, a Strategy Map’s modelling should depart from an organisation’s overarching objective, which is shareholder value creation (KAPLAN; NORTON, 2000). They even sustain that, “Creating shareholder value is the outcome that every strategy seeks to accomplish” (2000, p.83). Kaplan and Norton (2000) suggest the use of value creation measures, like DuPont’s ROI, EVA, or the Discounted Cash Flow (DCF), as an enterprise’s overarching target.

We believe that Kaplan and Norton’s (2000) comments bring enough evidence that Balanced Scorecard is focused on shareholder value creation. This matter will be further discussed at Data Analysis section, considering that it is a central part of this study.

## 2.2 EVA and VBM

EVA and VBM, although created by different authors, are very similar. Both tools have many common characteristics, like, for instance, (a) focus on shareholder value creation almost the way as "DuPont system"; (b) overarching value creation measures in both tools are almost identical (EVA and EP – VBM's value creation measure); (c) both tools address explicit strategy superficially, since they assume that by tying EVA or EP to financial incentives, both managers and employees will feel naturally motivated to execute value creating initiatives. Therefore, the best decisions, as well as the best strategy for an organisation would be intuitively executed by managers' and employees' quest to maximize EVA or EP.

Maybe the main difference between EVA and VBM is Copeland, Koller, and Murrin's (1995) ROIC tree, as already mentioned.

According to VBM's mentors, the measures underlying ROIC should be used as business units measures, cascading down to departmental level. Thereby, the whole organisation would be mobilized to continuous ROIC improvement, and, consequently, be mobilized to continuous value creation (COPELAND; KOLLER; MURRIN, 1995).

## 2.3 Strategic Planning

According to Obituary… (2002) text, Igor Ansoff is known for coining the term "Strategic Management". He published his first book in 1965, titled "Corporate Strategy", and in 1969 his second book, titled "Business Strategy". According to Ansoff, the key to Strategic Management is to recognize that if an enterprise is functioning, it is part of the environment. When a manager understands these dynamics, he can then lead the company into the future.

Ansoff theorized that if an organisation becomes self-centred, it soon loses track and dies. The author was a supporter of long-term sustainability, nourished by an organisation's commitment with social and political environments. From Ansoff's vision of a company's top priorities, it is possible to verify that that author's theories about corporate strategy are not focused primarily on shareholder value creation, like other tools approached by this study.

The Strategic Planning has about four decades of existence. When it emerged, in 1960's, it became very popular among executives. Years later, disappointment with that methodology came up, and it became considered to be complex, expensive, and, most of all, ineffective (NASCIMENTO, 2002). After going through some changes, Strategic Planning regained strength, and, despite the critiques, it is still used nowadays by many organisations (ANSOFF, 1994; NASCIMENTO, 2002).

Strategic Planning's deeper analysis is out of this study's scope. However, it is important to highlight the difference between this tool's philosophy and BSC's, EVA's and, VBM's philosophy. As already mentioned, Ansoff stated that an organisation's overarching objective should be its commitment with social-political environment. The authors of BSC, EVA, and VBM, on the other hand, made statements revealing that those tools are primarily focused on shareholder value creation. We infer, therefore, that Data Analysis section will reveal the differences between philosophies of Strategic Planning, BSC, EVA, and VBM.

## 3 RESEARCH METHOD

This research's universe comprehends companies in South and Southeastern regions of Brazil. The remaining regions have not been included, since their GDP represents less than 27% of the national GDP. We thus deemed that data from these two regions would be enough to reach the objectives of this study. We arbitrarily defined that companies with annual revenues below 10 million BRL[9] would not be included in this study. We considered that companies with revenues below that level, perhaps, do not present sufficient structure in order to make an analysis of their performance management tools feasible.

Using data collected from *FIESP*, *SEBRAE*, *Magazine Amanhã 500*, and *FEDERASUL*, a random sample of 350 companies from both of the above-mentioned regions was selected. After selection, the companies were contacted by phone[10], when the nature of the research was explained. After the company's agreement to contribute with the research, an e-mail was sent instructing respondents to access website: http://www.unisinos.br/pesquisa/indicadores[11], where it was possible to fill out the questionnaire. In that e-mail, respondents also received a login and password, in order to make identification possible.

Out of 350 contacted companies, 79 filled out the questionnaire. Companies were always contacted whenever the need to verify coherence between answers arose, considering there were logical associations between some questions. Two questionnaires were rejected because inconsistent answers remained even after direct contact was made in order to clarify them. This study's final sample, therefore, consists of 77 companies, being 34 publicly owned companies, and 43 privately owned companies. Regarding company size, 33 enterprises have annual revenues between 10 million BRL and 50 million BRL, and 44 have annual income over 150 million BRL.

We used SPSS software (Statistical Package for Social Sciences) for Windows, version 13.0, to apply statistical tests. The following information was obtained: (a) frequency distribution, (b) chi-square test, and (c) Phi and Cramér's V[12] tests.

Fonseca and Martins (1996) state that traditional risk levels for chi-square tests are of 1%, 5%, and 10%. The consulted literature revealed that the most commonly used risk level is 5%. Therefore risk level of 5% was chosen for this study ($\alpha$ = 5%).

Guimarães and Cabral (1998) declare that in order to be able to use chi-square tests, sample size must be equal to or above 30, and expected frequency in each cell should not be less than 5. According to those authors, if the latter condition does not prevail, it is accepted, with a moderate degree of reliability, up to 20% of cells with expected values below 5, but no cells with expected

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[9] Brazilian Real

[10] Contact was attempted with one of the following managers: with the company's Chief Executive Officer (CEO), with the Controller, with the head accountant, or with the Chief Financial Officer.

[11] We suggest its visitation for a better understanding of this study's research instrument. The questionnaire is in Portuguese.

[12] According to Green, Salkind, and Akey, (2000), traditionally results around 0,10, 0,30, and 0,50 are considered to be of "weak", "moderate", and "strong" intensity, respectively.

value below 1 are admitted. When those conditions are not met, it is recommended that adjacent classes be accumulated in order to obtain new categories that match the necessary conditions. When such an accumulation is necessary, footnotes are used in Data Analysis section.

# 4 DATA ANALYSIS

## 4.1 Analysis of organisational behaviour regarding use of performance measures

This analysis seeks to identify how organisations behave regarding the use of performance measures for decision-making. The data will be analysed according to the following structure: (a) question's description, (b) presentation of publicly and privately owned companies' data, (c) revealed data analysis.

Eight different aspects are analysed in order to investigate how organisations deal with them regarding performance measurement. These aspects are: (1) Financial; (2) Market; (3) Internal Processes; (4) Human Resources; (5) Relationship with the Government; (6) Relationship with Society; (7) Relationship with Suppliers; and (8) Relationship with the Environment. The first four aspects are associated with BSC's four perspectives. The latter four are intentionally not associated with any of BSC's perspective.

All eight aspects are analysed by means of two questions:

a) How do you rate the importance of each of the eight aspects pointed out below regarding the decision-making process, considering your company's reality?
b) At your company, to what degree are quantitative analyses and performance measures implemented, regarding each of the eight aspects below?

**Question (a): How do you rate the importance of each of the eight aspects pointed out below regarding the decision-making process, considering your company's reality?**

Table 1 – Degree of importance rated by public companies for each of the eight aspects regarding the decision-making process

| | Financial | Market | Internal Processes | Human Resources | Relation-ship with Government | Relation-ship with Society | Relation-ship with Suppliers | Relationship with the Environment |
|---|---|---|---|---|---|---|---|---|
| **None** | 0,0% | 2,9% | 0,0% | 2,9% | 2,9% | 8,8% | 0,0% | 2,9% |
| **Low** | 0,0% | 5,9% | 2,9% | 14,7% | 20,6% | 14,7% | 0,0% | 5,9% |
| **Intermediate** | 8,8% | 11,8% | 11,8% | 38,2% | 44,1% | 38,2% | 17,6% | 17,6% |
| **High** | 14,7% | 32,4% | 41,2% | 38,2% | 26,5% | 29,4% | 55,9% | 29,4% |
| **Very High** | 76,5% | 47,1% | 44,1% | 5,9% | 5,9% | 8,8% | 26,5% | 44,1% |

Table 2 – Degree of importance rated by private companies for each of the eight aspects regarding the decision-making process

| | Financial | Market | Internal Processes | Human Resources | Relation-ship with Government | Relation-ship with Society | Relation-ship with Suppliers | Relationship with the Environment |
|---|---|---|---|---|---|---|---|---|
| **None** | 0,0% | 0,0% | 0,0% | 0,0% | 14,0% | 0,0% | 2,3% | 4,7% |
| **Low** | 0,0% | 7,0% | 9,3% | 16,3% | 23,3% | 20,9% | 4,7% | 14,0% |
| **Intermediate** | 14,0% | 18,6% | 25,6% | 32,6% | 32,6% | 27,9% | 16,3% | 14,0% |
| **High** | 37,2% | 27,9% | 39,5% | 37,2% | 18,6% | 32,6% | 46,5% | 39,5% |
| **Very High** | 48,8% | 46,5% | 25,6% | 14,0% | 11,6% | 18,6% | 30,2% | 27,9% |

Analysing frequency distribution shown in Table 1, it is possible to verify that public companies set a higher degree of importance to the financial aspect than to all other aspects, which, according to Kaplan and Norton (1992, 1996, 2000), is not adequate to current business environment. As already mentioned in Literature Review, BSC’s creators point out that current business environment requires greater balance between the financial aspect and all other aspects.

The greater level of importance rated by public companies to the financial aspect possibly occurs as a result of the fact that managers from that group of organisations suffer continuous pressure from shareholders in order to present high return rates in quarterly financial statements. This pressure can be better understood, considering the impact quarterly financial statements have on a public company’s share price.

An analysis of Table 2, on the other hand, reveals that private companies have a higher balance between financial and non-financial aspects. Therefore, according to Kaplan and Norton, balance achieved by that group of companies would be more adequate to current business environment than balance revealed by public companies.

Chi-square test confirms the association found between the companies’ ownership (public or private) and the degree of importance rated to the financial aspect, which resulted in $0{,}014 < \alpha = 0{,}05$[13]. Relationship strength can be defined as intermediate, considering that Phi’s result is close to 0,30.

We infer two possibilities for the greater balance between the eight aspects revealed at private companies. One possibility is that private companies’ organisational culture is naturally associated with a greater balance. The other possibility would be that private companies use BSC more intensively than public companies. This second possibility will be checked further on. In this case, if confirmed, we would conclude that the use of BSC at private companies is providing greater balance between the financial and the non-financial aspects.

Balanced Scorecard characteristics, possibly more adherent to public companies, begin to make sense considering frequency distribution results shown in Table 1, as well as chi-square results, since, according to Kaplan and Norton, BSC is a management tool designed to establish balance between financial and non-financial aspects. According to Otley (1999), Balanced Scorecard seeks to provide a solution to problems caused by public companies excessive focus on financial measures. Therefore, public companies’ excessive focus on financial statements would be a consequence of excessive focus on shareholders.

**Question (b): At your company, to which degree are quantitative analyses and performance measures implemented, regarding each of the eight aspects below?**

Table 3 – Implementation level of quantitative analyses and performance measures, considering public companies business environment

| | Financial | Market | Internal Processes | Human Resources | Relationship with Government | Relationship with Society | Relationship with Suppliers | Relationship with the Environment |
|---|---|---|---|---|---|---|---|---|
| **None** | 0,0% | 0,0% | 2,9% | 2,9% | 8,8% | 5,9% | 0,0% | 5,9% |
| **Low** | 5,9% | 14,7% | 8,8% | 20,6% | 47,1% | 47,1% | 5,9% | 17,6% |
| **Intermediate** | 11,8% | 17,6% | 17,6% | 35,3% | 23,5% | 20,6% | 35,3% | 35,3% |
| **High** | 50,0% | 47,1% | 44,1% | 41,2% | 11,8% | 20,6% | 44,1% | 17,6% |
| **Very High** | 32,4% | 20,6% | 26,5% | 0,0% | 8,8% | 5,9% | 14,7% | 23,5% |

[13] Degrees of importance “none”, “low”, “intermediate”, and “high” were grouped into a single class.

Frequency distribution analysis of Table 3 reveals that the financial aspect has the highest degree of quantitative analyses and performance measures implementation, among publicly owned companies. Table 3 shows that 82,4% of all public companies informed that the financial aspect had a "very high" or a "high" degree of implementation. This finding makes sense, considering that the mentioned aspect is the most important among public companies.

Table 4 – Implementation level of quantitative analyses and performance measures, considering private companies business environment

| | **Financial** | **Market** | **Internal Processes** | **Human Resources** | **Relation-ship with Government** | **Relation-ship with Society** | **Relation-ship with Suppliers** | **Relationship with the Environment** |
|---|---|---|---|---|---|---|---|---|
| **None** | 0,0% | 0,0% | 0,0% | 0,0% | 20,9% | 11,6% | 2,3% | 14,0% |
| **Low** | 9,3% | 18,6% | 14,0% | 20,9% | 32,6% | 30,2% | 23,3% | 20,9% |
| **Intermediate** | 37,2% | 37,2% | 41,9% | 48,8% | 18,6% | 25,6% | 37,2% | 16,3% |
| **High** | 41,9% | 37,2% | 41,9% | 25,6% | 18,6% | 23,3% | 34,9% | 44,2% |
| **Very High** | 11,6% | 7,0% | 2,3% | 4,7% | 9,3% | 9,3% | 2,3% | 4,7% |

Table 4 frequency distribution analysis, on the other hand, reveals that financial measures implementation degree at private companies is below public companies' level. Around 53% of all private companies sampled informed implementation degree "very high" or "high" for the mentioned group of measures.

By analysis and comparison of Table 3 and Table 4, the high degree of importance public companies rate to financial aspects is once again confirmed. The data revealed up to this point reinforce the idea that publicly owned companies are influenced by the need to publish quarterly financial statements. We thereby deduce that this group of companies' top priority might be meeting the shareholders' expectations; thus, all non-financial aspects remain at a lower degree of importance.

Association between the companies' ownership and the degree of financial measures implementation may be confirmed by chi-square test, which resulted in $0{,}012 < \alpha = 0{,}05$[14]. Relationship strength can be defined as intermediate, considering that Cramér's V result is close to 0,30.

### 4.2 Use of Balanced Scorecard as a management tool, compared to other tools

Kaplan and Norton (2000) state that Balanced Scorecard provides (a) performance measures strategic alignment, (b) communication of strategy, and (c) support in decision-making. Recapturing, this study's objective is to verify organisational behaviour regarding the use of Balanced Scorecard. Data captured from (i) Strategic Planning, and (ii) EVA / VBM are used as control variables.

Besides the mentioned management tools, some questions also compared BSC to procedures such as: periodical meetings with employees; use

[14] Degrees of importance "none", "low", and "intermediate" were grouped into a single class.

and analysis of financial measures; use and analysis of non-financial measures. Due to this fact, the term “management procedure” was used in the questionnaire in order to refer to those management tools, as well as to refer to management procedures.

Questions referring to items “a”, “b”, and “c” above will be presented next. Interpretation analysis will be made right after presenting the three questions.

**Question (c): How much does each management procedure below contribute to aligning performance measures to strategy, considering your company’s reality?**

Table 5 – Contribution of management procedures align performance measures to strategy

| | Strategic Planning | BSC | EVA / VBM | Periodical Meetings | Strategic Planning | BSC | EVA / VBM | Periodical Meetings |
|---|---|---|---|---|---|---|---|---|
| Ownership | Public Companies | | | | Private Companies | | | |
| **None** | 5,9% | 26,5% | 38,2% | 11,8% | 7,0% | 60,5% | 44,2% | 2,3% |
| **Low** | 11,8% | 8,8% | 11,8% | 11,8% | 11,6% | 4,7% | 9,3% | 23,3% |
| **Intermediate** | 29,4% | 29,4% | 11,8% | 20,6% | 32,6% | 20,9% | 30,2% | 20,9% |
| **High** | 26,5% | 17,6% | 26,5% | 44,1% | 34,9% | 9,3% | 11,6% | 41,9% |
| **Very High** | 26,5% | 17,6% | 11,8% | 11,8% | 14,0% | 4,7% | 4,7% | 11,6% |

**Question (d): How much does each management procedure below contribute to communicationg your company’s strategy, considering your company’s reality?**

Table 6 – Contribution of management procedures to communicate strategy

| | Strategic Planning | BSC | EVA / VBM | Periodical Meetings | Strategic Planning | BSC | EVA / VBM | Periodical Meetings |
|---|---|---|---|---|---|---|---|---|
| Ownership | Public Companies | | | | Private Companies | | | |
| **None** | 8,8% | 35,3% | 50,0% | 5,9% | 4,7% | 60,5% | 44,2% | 2,3% |
| **Low** | 11,8% | 11,8% | 5,9% | 14,7% | 18,6% | 11,6% | 16,3% | 27,9% |
| **Intermediate** | 29,4% | 20,6% | 8,8% | 20,6% | 16,3% | 16,3% | 23,3% | 18,6% |
| **High** | 38,2% | 17,6% | 23,5% | 44,1% | 39,5% | 7,0% | 11,6% | 37,2% |
| **Very High** | 11,8% | 14,7% | 11,8% | 14,7% | 20,9% | 4,7% | 4,7% | 14,0% |

**Question (e): How much does each management procedure below contribute to decision-making, considering your company’s reality?**

Table 7 – Contribution of management procedures to decision-making[15]

| | BSC | EVA / VBM | Strategic Planning | Use of FM | Use of NFM | BSC | EVA / VBM | Strategic Planning | Use of FM | Use of NFM |
|---|---|---|---|---|---|---|---|---|---|---|
| Ownership | Public Companies | | | | | Private Companies | | | | |
| **None** | 23,1% | 9,5% | 0,0% | 0,0% | 0,0% | 5,6% | 3,6% | 2,4% | 0,0% | 2,3% |
| **Low** | 19,2% | 23,8% | 6,1% | 2,9% | 11,8% | 33,3% | 39,3% | 7,3% | 11,6% | 14,0% |
| **Intermediate** | 15,4% | 9,5% | 30,3% | 14,7% | 20,6% | 22,2% | 25,0% | 22,0% | 16,3% | 32,6% |
| **High** | 30,8% | 33,3% | 30,3% | 32,4% | 52,9% | 22,2% | 21,4% | 46,3% | 32,6% | 34,9% |
| **Very High** | 11,5% | 23,8% | 33,3% | 50,0% | 14,7% | 16,7% | 10,7% | 22,0% | 39,5% | 16,3% |

15 Legend: “Use of FM” = “Use of Financial Measures”; “Use of NFM” = “Use of Non-Financial Measures.

Table 5, Table 6, and Table 7 reveal that public companies, as well as private companies, use prevailingly Strategic Management, performance measures, and periodical meetings as their performance management tool.

Despite the fact that Balanced Scorecard is not among the most widely used management tools, it is observable that it is used more intensively by public companies than by private companies, which can be concluded by analysing "very high" and "high" degrees of contribution together for questions (c), (d), and (e). Strategic Planning, on the other hand, is used more intensively by private companies than by public companies.

Data revealed up to this point suggest that the use of Balanced Scorecard is associated to a company's ownership. In order to apply the chi-square test, the following method was adopted: companies that answered "none" for questions (c), (d), and (e) were considered non-BSC users. Otherwise, if the company informed at least a "low" degree of contribution to any of the three questions, it was considered to be a BSC user.

Table 8 shows the proportion of companies that use and that do not use BSC, according to the criteria established in the preceding paragraph. In order to enrich the analysis, a comparison between BSC and Strategic Planning is also presented.

Table 8 – Use of BSC vs. use of Strategic Planning

| | **BSC** | **Strategic Planning** |
|---|---|---|
| ***No*** | 42,9% | 3,9% |
| ***Yes*** | 57,1% | 96,1% |

Table 8 shows around 57% of companies using BSC, whether with a low or with a high level of intensity. The same table shows that around 43% of the sampled companies do not use BSC in any aspect of their performance management. Regarding Strategic Planning, almost all sampled companies, on the other hand, use the tool in some degree of intensity, confirming its high acceptance among organisations.

The chi-square test, resulting in $0{,}002 < \alpha = 0{,}05$, confirms, once again, that use of BSC is associated to a company's ownership, reinforcing Literature Review, as well as the results revealed up to this point. Relationship strength can be defined as intermediate, considering that Phi's result is close to 0,30.

### 4.3 Analysis of the organisations' main targets

We believe that publicly owned and privately owned companies have distinct cultural values. Those differences may be the cause of the greater emphasis public companies placed on financial aspect, as already revealed.

In this topic (4.3) we search for possible cultural differences by analysing publicly and privately owned companies' top priorities. In order to analyse those priorities, participants were asked to order, in growing scale, ten different organisational targets. The given alternatives were: (a) current period's profits maximization; (b) growth with long-term sustainability; (c) market leadership; (d) control of costs, productivity, and efficiency; (e) know-how development; (f) work environment optimisation; (g) development of good relationship with government / authorities; (h) development of social responsibility-oriented projects; (i) development of partnerships with suppliers; (j) development of environmental-oriented projects.

In order to enable distinction of companies' priorities, participants could not set the same degree of priority to two different targets. Thus, participants ranked priorities from 1 to 10.

Results were calculated using the arithmetic mean of all rank orders informed by participants. Thereby, the best possible result for a given target is 1, in case all participants informed maximum priority to this target; likewise, 10 is the worst possible result for a given target, in case all participants informed minimum priority to the target. Results were rounded to the nearest ten thousandth, in order to enable comprehension.

**Question (f): What are your company's top priorities?**

Table 9 – Sampled organisations top priorities

| Ownership | Public Companies | | Private Companies | |
|---|---|---|---|---|
| Target | Results' Arthmetic Mean | Mean's Ranking | Results' Arithmetic Mean | Mean's Ranking |
| a) Current period's profits maximization | 2,5588 | 1 | 2,5116 | 2 |
| b) Growth with long-term sustainability | 2,8824 | 2 | 2,3953 | 1 |
| c) Market leadership | 3,9118 | 4 | 3,8837 | 4 |
| d) Control of costs, productivity, and efficiency | 3,0588 | 3 | 3,1163 | 3 |
| e) Know-how development | 5,5882 | 5 | 5,5349 | 5 |
| f) Work environment optimisation | 6,8824 | 7 | 6,7907 | 7 |
| g) Development of good relationship with government / authorities | 8,3824 | 10 | 8,5116 | 10 |
| h) Development of social responsibility-oriented projects | 8,2941 | 9 | 8,2558 | 9 |
| i) Development of partnerships with suppliers | 6,0000 | 6 | 6,1395 | 6 |
| j) Development of environmental-oriented projects | 7,4118 | 8 | 7,8605 | 8 |

As already mentioned, BSC's proposal is to bring balance between short-term financial results and mid or long-term investments in non-financial targets. Examples of mid or long-term targets are investments in initiatives aiming at: (a) new clients retention and acquisition, (b) efficiency increase in operations in order to improve product quality, (c) employees training in order to improve efficiency, etc.

The need to balance short-term and long-term targets is greater for publicly owned companies, since the revealed results fortify the idea of public companies being focused on immediate financial results. We believe the explanation for such a fact is that public companies must meet shareholders expectations, and, thereby, must maximize quarterly financial statements.

Privately owned companies' top priority, on the other hand, revealed to be "growth with long-term sustainability". We infer those companies focus on long-term sustainability due to organisational culture, which could be associated to private companies' owners long-term mindset.

We believe that publicly owned companies short-term focus could be influenced by stockholders short-term mindset, tuned to immediate market value increase or immediate dividend payment.

## 5 CONCLUSIONS

This study's field research revealed that both, the degree of importance of financial aspects for decision-making, and the degree of implementation of financial measures, are significantly higher in publicly owned companies than in privately owned companies. These findings confirm Pessanha and Prochnik's (2004) research, which demonstrated financial measures still prevailed in companies that had implemented Balanced Scorecard.

Evidence reveals that Balanced Scorecard characteristics may still be focused on maximizing shareholders' wealth, since that tool's characteristics adhere better to publicly owned companies.

Regarding priorities pointed out by public and private companies, results were similar. Despite the similarity, public companies informed that their top priority was "current period's profits maximization". Private companies, on the other hand, informed their top priority to be "growth with long-term sustainability".

We believe this is an important revelation, since it confirms the fact that public companies are primarily focused on short-term financial results, supposedly in order to meet shareholders expectations. Private companies, on the other hand, not suffering pressure from stockholder to publish high return rate quarterly financial statements, focus on long-term sustained growth. We infer this finding confirms better BSC adherence to public companies, considering the fact that Kaplan and Norton (2000) present the tool as a solution to companies excess focus on short-term decisions, based primarily on financial measures. Since long-term sustainability is private companies' top priority, supposedly influenced by cultural issues, we infer BSC wouldn't be so effective in this kind of enterprise.

Regarding the comparison between BSC, EVA / VBM, and Strategic Planning, BSC and EVA / VBM revealed greater adherence to public companies. Field research, on the other hand, demonstrated that Strategic Planning adheres better to private companies. We infer this happens, because, as demonstrated by Literature Review, Igor Ansoff, considered to be the father of Strategic Planning, was an advocate of long-term sustainability, nourished by the company's commitment to social-political environment (OBITUARY…, 2002). We thus believe Strategic Planning's characteristics may be more adherent to privately owned companies.

## REFERENCES


ANSOFF, Igor. Comment on Henry Mintzberg's Rethinking Strategic Planning. **Long Range Planning**, London, v.27, n.3, p.31-32, 1994

COPELAND, Tom; KOLLER, Tim; MURRIN, Jack. **Valuation: Measuring and managing the value of companies**. New York: John Wiley & Sons, 1995. 558 p.

DEARDEN, John. The Case Against ROI Control. **Harvard Business Review**, Boston, v.47, n.3, p.124-135, May/June, 1969

DUPONT Heritage. **DuPont's Institutional Website** – Available at: http://heritage.dupont.com/. Accessed in 05/03/2005

GUIMARÃES, Rui Campos; CABRAL, José A. S.. **Estatística**.Lisboa:McGraw-Hill,1998.621 p.

JOHNSON, Thomas H.; KAPLAN, Robert S.. **Relevance Lost**. Boston: Harvard Business School, 1987. 239 p.

KAPLAN, Robert S.; NORTON, David P.. The Balanced Scorecard – Measures That Drive Performance. **Harvard Business Review**, p.71-79, Jan/Feb 1992

KAPLAN, Robert S.; NORTON, David P.. **The Balanced Scorecard – Translating Strategy Into Action.** Boston: Harvard Business School Press, 1996. 344p.

KAPLAN, Robert S.; NORTON, David P.. **The Strategy-Focused Organization: how Balanced Scorecard companies thrive in the new business environment**. Boston: Harvard Business School Press, 2000. 457 p.

FONSECA, Jairo Simon da; MARTINS, Gilberto de Andrade. **Curso de Estatística**. São Paulo: Atlas, 1996. 320 p.

MINTZBERG, Henry. The Fall and Rise of Strategic Planning. **Management Accounting Research**, Boston, v.72, n.1, p.107-114, Jan / Fev 1994

NASCIMENTO, Auster M. **Descentralização do processo de formulação das estratégias empresariais**. 2002. 196 p. Tese (Doutorado) – Faculdade de Economia, Administração, e Ciências Contábeis, Universidade de São Paulo, São Paulo, 2002.

OBITUARY: Igor Ansoff, the father of strategic management. **Strategic Change**, v.11, n.8, p. 437-438, Dez 2002

OTLEY, David. Performance Management: a framework for management control systems research. **Management Accounting Research**, Kidlington, v.10, n.4, p.363-382, Dez 1999

PESSANHA Diogo S.; PROCHNIK, Victor. Obstáculos à Implementação do Balanced Scorecard em Três Empresas Brasileiras In: **XXVIII – Encontro da ANPAD,** Curitiba, 2004

ROSS, Stephen A.; WESTERFIELD, Randolph W.; JAFFE, Jeffrey F. **Administração Financeira**. São Paulo: Atlas, 1995. 689 p.

STEWART III, G. Bennett. **The Quest for Value: the EVA management guide**. New York: Harperbusiness, 1991. 781 p.

WEIMER, Jeroen; PAPE, Joost C.. A Taxonomy of Systems of Corporate Governance. **Corporate Governance**, Blackwell, v.7, n.2, p. 152-166, Abr 1997