

Balanced Scorecard: Empirical Study in Brazil

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Abstract: The present assignment aims to study the application of the Balanced Scorecard in Brazil and has as its objective: to ascertain the degree of knowledge of this method; to determine its rate of utilization in the companies of this group; to assess the existence or not of the relation between the level of the strategic alignment of each company and the use of the balanced scorecard; to test the theory which affirms that there is a relation between the use of this method and the dimension of the organizations. Concludes through the information collected that the rate of knowledge of the system is high, the degree of utilization of the tool is likened to that which was verified in the theory and reaches almost half of the participating companies. It was not possible to find data which affirms that there is a relation between the use of the system and the level of strategic alignment of the organizations and evidence was not obtained which supports that there is a relation between the dimension of the company and the use of the balanced scorecard.

Key words: Balanced scorecard, management, performance evaluation, dimension, tool

INTRODUCTION

The objective of this work is to contribute to the knowledge about the utilization of the balanced scorecard in Brazil. The questions of the study were formulated to respond to the more specific following questions: the degree of knowledge of this method and its rate of utilization; the association between the utilization of the balanced scorecard and the level of strategic alignment of the companies; the association between the utilization of the balanced scorecard and the dimension of the companies.

This study was motivated by the perception that performance evaluation based on traditional financial measures is inadequate. The theory argues that excessive emphasis on evaluation measures based on short-term financial results can lead managers to invest in quick fixes, instead of creating long term value (Crabtree and DeBusk, 2008; Liedtka *et al.*, 2008; Kaplan and Wisner, 2009; Wiersma, 2009; Sundin *et al.*, 2010; Tayler, 2010; Herath *et al.*, 2010; Kraus and Lind, 2010; Cokins, 2010; Albright *et al.*, 2010; Neumann *et al.*, 2010; Cardinaels and van Veen-Dirks, 2010; Northcott and Smith, 2011; Butler *et al.*, 2011; Bol, 2011).

Management accounting practices within the organizations are little disclosed in Brazil because of

the optional aspect of this branch of accounting. This justifies the performance of empirical studies in this country as a contribution for the contingency theory, since this theory recognizes that cultural differences between the various countries are a differentiation factor within the management accounting methods used (Yang *et al.*, 2006; Macarthur, 2006).

The area of the study is comprised of the group of companies present in the ranking of the “150 Best Companies for You to Work” in Brazil, published by the Brazilian magazine Revista Voce S/A|Exame. The study was realized through the application of inquiries via the internet. The target-public to send the probe to was composed of persons responsible for the area of human resources of the companies as they are the ones responsible for the process of inclusion of the companies in the ranking of the magazine. The collection of data was realized in three phases, 46 surveys were received which generates a response rate of 36%.

Research questions: Kaplan and Norton (1992) created a system of performance evaluation which became known as the Balanced Scorecard (BSC). Researchers believed that the systems which existed up to that time based on financial information were obsolete (Kaplan and Norton, 1996b). According to Kaplan and Norton (2000), one of

the deficiencies of the systems of performance evaluation, developed only with financial measures is in the fact that the same didn't take into consideration important intangible assets such as human capital or a client list. The problem of measuring these assets does not make them less important in the gauge in which they can be the competitive difference of the organization in the market in which they operate. Kaplan and Norton (2004) highlighted that the intangible assets are difficult to imitate on the part of the competitors, therefore, they are a source of competitive advantage for the companies. Kaplan and Norton (1993) affirmed that the BSC can be a link between the short term measures (generally composed of financial measures) and the long term measures (which take into consideration other factors besides financial). In this way, permitting the alignment of the future strategic objectives of the organization with short term actions (Kaplan and Norton, 1996a).

The BSC was presented for the first time in 1992 (Kaplan and Norton, 1992) as being a performance evaluation system based on four perspectives centered on strategy: financial; clients; internal processes; innovation and learning. Afterwards, the last perspective was renamed learning and growth (Kaplan and Norton, 1996b). Considering the innovation as being something inherent to the actual competitive market, applied continually by the companies and that is a part of the perspective of internal processes.

The financial measures, although having been revealed as being insufficient as tools exclusive for evaluation of the companies on the part of the managers, continued to be utilized in the BSC, namely in the financial perspective. Despite these measures not having considered factors such as quality, employee motivation, customer satisfaction (Kaplan and Norton, 1992), they were highlighted during the construction of the BSC and reflect the results of a good performance in the other perspectives. The financial perspective integrates a group of financial objectives generally associated to the growth, profitability and shareholder return (Kaplan and Norton, 1992). The financial strategy was developed through the growth of gains and productivity (Kaplan and Norton, 2000). Growth can be obtained through the tightening of relations with the actual clients (Atkinson and Kaplan, 2007). The improvement in productivity through the reduction of direct and indirect costs and through the efficient use of assets, reducing the capital necessary to maintain the business structure (Kaplan and Norton, 2000).

The objective of the clients' perspective is to translate the company's strategy into specific objectives for the key clients of the company. The objectives of

this perspective should try to find the necessities the clients and should determine how the company should differentiate itself from others in the market (Atkinson and Kaplan, 2007). According to Kaplan and Norton (1992), the managers need to establish measures that reflect the factors that really matter to the clients such as: time; quality; performance and service; cost. This perspective should be developed from the point of view of customer satisfaction and how to achieve, increase and maintain this satisfaction. The products offered should have the quality expected to be aligned to the necessities of the clients have competitive prices be innovative and offered at the right time. For a client, the price may not be the decisive factor at the moment of choosing the product or service. This factor can be a personalized attention to service or the differentiation of the product. Kaplan and Norton (1996b) related that some clients want the minimum necessary, at the right time and a low price; others search for products with a high aggregate value, even if it is a higher price. Kaplan and Norton (1996b) and Atkinson and Kaplan (2007) still suggested that a company seeks to identify the different market segments in which it intends to operate and create its strategic objectives in accordance with each segment. In this form, the company will know where it should concentrate its efforts where to invest and how to segment its assets in a direct manner, personalized and closely bound to the values of each client.

Kaplan and Norton (2000) reinforced that the internal processes perspective represents the means by which the company will reach differentiation before its clients and improvement to production to attain its financial objectives. For Kaplan and Norton (1992), the company needs to establish which are the internal processes must excel at because they cause an impact on the services and products offered to the clients (customer satisfaction, quality, productivity and deadlines). The objectives and fundamental measures of the internal processes should be defined by the management of the organization and revealed to all of the employees. According to Kaplan and Norton (1992), the link between the measures of the managers and of the employees assures that the teams that are at the base of the organization will also have objectives aligned to the strategy. In this way, the employees notice how their activities will contribute to the mission of the organization.

The capabilities, technology and culture of the organization compose the perspective of the learning and growth and serve as support so that the other perspectives are reached (Kaplan and Norton, 1996b) and that the strategic objectives of the companies are attained (Kaplan and Norton, 2000). The categories suggested by

Kaplan and Norton (1996b) for this perspective are: employee capability; capability of the information systems and motivation; commitment and alignment. Relative to the capability of the employees, evaluate the capabilities, graduation and knowledge necessary so that they can develop the strategic objectives of the organization (Kaplan and Norton, 2004, 1996b). An integrated information system of quality guarantees security and reliability in the management of information, apart from facilitating quick corrective and effective actions in the cases in which problems were detected. The information should be available in a form which is correct and lively, equally for the employees that work directly with the clients as well as employees from the operations (Kaplan and Norton, 1996b). The investments in technology should be complemented with investments in training. Both, training of the employees and technology should be aligned to the strategy of the organization. Kaplan and Norton (2004) affirm the organizational climate, the availability of qualification programs and the use of bulletin boards are aspects that impact on the motivation and commitment of the employees. The organizational commitment is obtained when the employees share in the same vision and notice how their work contributes to the strategy of the company. In the division of the same purpose, the employees share the knowledge relevant to the execution of the strategy equally on a departmental as well as global level (Kaplan and Norton, 1996a).

The transmission of the strategy to everyone in the company is fundamental for the success of the BSC nevertheless the information cannot arrive in a form which is inadequate. Kaplan and Norton (2000) suggest the elaboration of a strategic map in the process of the creation of the BSC. In this way, all of the employees will have a clear vision of how their work is connected to the global objective of the organization. The strategic map should be created from this point of the company's strategy, delineating the ways that will take the organization to its objective (Kaplan and Norton, 1993). The strategic map is composed of a collection of objectives, goals and actions which represent the mission and the vision of the company. The strategic map represents a centralized form of the key points of the company and permits the visualization of the biggest gaps which exist in the strategies that are to be implanted (Kaplan and Norton, 2000). All of the information of the map should be aligned and interconnected. Kaplan and Norton (2008) emphasize that the map is a powerful visualization tool in the relations of cause and effect between the perspectives. These relations show how the four different strategic perspectives interface between

themselves through their measures (Atkinson and Kaplan, 2007). Kaplan and Norton (1996b) highlight that all the measures selected and which compose the BSC communicate the strategy and the business of the organization. Speckbacher *et al.* (2003) stress that the relations of cause and effect between the objectives and the perspectives are the differentials of this approach in front of the others. Atkinson *et al.* (1997) affirm that the relations of cause and effect provide the managers with a base to administrate its results. In terms of utilization, the BSC has attracted a lot of international attention (Norreklit, 2003) and its utilization has been divulged in different geographical locations as presented in Table 1.

Silk (1998) alludes that 60% of the 1000 companies that make up part of the list divulged by Fortune use the BSC. Kald and Nilsson (2000) realized an investigation in a group of Nordic companies and concluded that the BSC had a utilization rate of 27% and that 61% of the other companies surveyed probably will use it within the next 2 years. Rigby (2001) elaborated a study about management techniques and tools in diverse countries from different continents whose results presented a rate of use of the BSC of 44%. Ittner *et al.* (2003) verified that 20% of the companies of the financial sector of the United States implemented the system. In the same year, Speckbacher *et al.* (2003) elaborated a study about the implementation of the system in Germany, Austria and Switzerland and concluded that the BSC was applied in approximately 26% of the companies surveyed. Anand *et al.* (2005) on analyzing the use of the BSC in Indian companies, verified that 45% of the organizations used the tool. Atkinson and Kaplan (2007) divulged that studies around the world indicated that 60-70% of the companies were using some version of this approach. Juhmani (2007), after a study in Bahrain (Middle East), reported the use of the system by 65% of the companies. Curado and Manica (2010) elaborated a study about the use of management control systems in Madeira Island (Portugal) which revealed a rate of utilization of the BSC

Table 1: Degree of utilization of the BSC

Researchers	Country	Adoption rate (%)
Silk (1998)	United States	60
Kald and Nilsson (2000)	Nordic Countries	27
Rigby (2001)	Global	44
Ittner <i>et al.</i> (2003)	United States	20
Speckbacher <i>et al.</i> (2003)	Germany, Austria and Switzerland	26
Anand <i>et al.</i> (2005)	India	45
Atkinson and Kaplan (2007)	Global	60
Juhmani (2007)	Bahrain	65
Curado and Manica (2010)	Portugal	10
Machado (2013)	Portugal	5
Nunes and Machado (2014)	Portugal	19

of 10%. More recently two other studies conducted in Portugal but in specific sectors, report BSC utilization rates very diverse: Machado (2013) report a utilization rate of 5% in industrial SME; Nunes and Machado (2014) reports a utilization rate of 19% in 4 and 5 star hotels. All of these studies indicate that the BSC has been used by diverse companies from diverse countries and presented varied rates of utilization.

The benefits associated with the utilization of the BSC are diverse. Kaplan and Norton (1993) emphasize that it provides managers with a tool that translate the strategic objectives of the organization into a coherent collection of performance measures. The system promotes a collection of measures from a financial origin (which provides information of actions already taken) and not finance (which directs the future of the financial performance). This group of information will give the managers a comprehensive vision of the business (Kaplan and Norton, 1992). In the same way, Hoque and James (2000) see the BSC as a tool that integrates measures of financial performance and not finance. Through the elaboration of a strategic map, Kaplan and Norton (2000) affirmed that the organizations will have a framework that will show how the company can transform its actions and resources (including intangible assets) into returns. The creators of the BSC (Kaplan and Norton, 1992) emphasize some more benefits that are attributed to the system, like the fact that the managers will be able to visualize the performance of diverse areas simultaneously; analyze whether the development of an area is to be done at the cost of another; focus on the measures which are more critical to the business. Juhmani (2007) certified that the BSC helps the companies evaluate the application of its vision and strategy, besides being a framework that translate the strategic objectives of the organization into a collection of performance measures. Norreklit (2000) stresses the contribution of the system relative to the organizational communication. Researcher comment that the BSC provides a more comprehensive image of the company and that this fact can be a way to change the communication of the strategy within the organization. Atkinson *et al.* (1997) emphasize the BSC as a sophisticated information structure that unites strategy, processes and management, becoming an integrated system of planning and control. The system presents a series of indicators in a single document which provides a complete vision of the performance of the organization.

Despite this there also exists diverse criticism of the BSC. Atkinson and Kaplan (2007) emphasize some items that can result in failure in the use of the system; use of an insufficient number of measures that do not represent the strategy; the use of a great number of measures that

result in loss of focus on the critical points; lack of a link between the results hoped for and the processes that lead to them. According to Atkinson and Kaplan (2007), four errors are likely to occur in the construction of a BSC: lack of commitment of the management; the responsibility of the scorecard is not passed onto the other employees; the system has a great dimension or is seen as a single event; the BSC is treated like a system or project of a consultancy. The BSC should not be rigid, the system should commence with some measures and its utilization should be dynamic; the objectives, measures and data can be modified in accordance with the training of the company (Atkinson and Kaplan, 2007). Juhmani (2007) highlights some difficulties raised about the use of the BSC; the cost of development; the necessity of the updating of the employees; the problems in determining on which clients that should be focused; the difficulties in measuring the satisfaction of the clients and the employees. Norreklit (2000, 2003) criticizes the fact the BSC being a system created by the managers and subsequently passed to the other levels of the organization (top-down system), without the participation of the employees. Norreklit (2000, 2003) further criticizes the relation of cause and effect, since he affirms that a good performance in customer satisfaction doesn't necessarily lead to good financial results. Cavalluzzo and Ittner (2004) report that the lack of highly developed information systems and the necessity to quantify the qualitative results are problems that affect the utilization of the BSC. Anand *et al.* (2005) report the difficulty in reaching a balance between the financial and non-financial measures in the creation and implementation process of the BSC. Epstein and Manzoni (1998) report four types of difficulties which can be encountered by the companies at the implementation of this approach: problems in articulating a clear and shared strategy on the part of the managers; the necessity to dedicate time for the development of the system and the consequent increase of the volume of work; resistance on the part of the managers that want to protect their space; survival of the system after the period of implementation.

Some researchers (Bourguignon *et al.*, 2004) defend that the BSC adds little to the older approach developed in Europe: the Tableau de bord. The Tableau de bord are composed of an approach created by a group of Frenchmen with the objective of providing to the managers a panel of strategic information to be used in the processes of making decisions (Atkinson *et al.*, 1997). The approach was born when a group of French process engineers resolved to understand the relation between their actions and the performance of the processes. It was later applied by top managers as a collection of indicators

which permitted them to monitor the progress of business of the objectives, besides facilitating taking of correctives actions (Epstein and Manzoni, 1998). The Tableau de bord are composed of a collection of financial and non-financial measures in which unit has its objectives, targets and indicators integrated to the organizational structure (Epstein and Manzoni, 1998). Debusk *et al.* (2003) presented a similar description to the claim that the Tableau de bord is a method that translates the mission and values of the business into objectives. According to Bourguignon *et al.* (2004), the BSC and the Tableau de bord are systems that present similarities, namely: the translation of the vision and strategy of the organization into objectives and measures; the use of financial and non-financial measures; the pursuit of a connection between the actions of the employees and the decisions of the managers are a hierarchical top down system in which the managers develop and share the system with the employees; recommend selectivity of measures with the objective of avoiding an excess of information.

Epstein and Manzoni (1998) affirm that the Tableau de bord is inclined to give emphasis to the financial measures and the collection and dissemination of already existing performance indicators. Because the tool has existed for decades, it fails to utilize important notions learnt in the last years such as the gathering of information outside of the organization (with the clients) instead of internally.

MATERIALS AND METHODS

The literature review presents the BSC as an innovative face to the conventional systems of performance evaluation in the measure in which it joins the utilization of non-financial measures to the traditional financial measures. The theory alludes that the methods that only use financial information fail in the valuation of its intangible assets, namely the human capital (Kaplan and Norton, 1992, 1993, 1996b, 2000; Ittner *et al.*, 2003). This revision of the literature has raised the formulation of the following question of the study:

Research question A: Do the companies know and utilize the balanced scorecard?

The literature review further emphasizes that the BSC is not only a performance evaluation system but a strategic management system; one of its objectives is the dissemination of the strategy to everyone in the organization as well as the alignment of everyone involved to achieve the objectives of the company (Ismail, 2007; Anand *et al.*, 2005; Norreklit, 2000). In this

form, the second research question intends to investigate if there is a relation between the level of strategic alignment of the organizations to the utilization of the BSC in this group of companies:

Research question B: Is there a connection between the utilization of the balanced scorecard and the strategic alignment of the companies?

Hoque and James (2000) elaborate a study in which one of their hypotheses was to evaluate if the use of the BSC was positively connected to the dimensions of the companies. The results of this study support the hypothesis in which the use of the BSC is connected to the big companies in other words that there is a significant connection between the dimensions of the company and the use of the BSC. With the objective of testing this hypothesis, the third research question was formulated:

Research question C: Is there a connection between the utilization of the balanced scorecard and the dimension of the companies?

Regarding the collection of data, the area of the study is comprised of the group of companies present in the ranking of the "150 Best Companies for You to Work" in Brazil, published by the Brazilian magazine Revista Voce S/A|Exame (2011). Owing to the fact that the companies in this ranking have a special concern with the human capital, there arose an interest in knowing whether these companies present a rate relevant to the knowledge and use of the BSC.

The inquiry was done and made available on an internet page. The application of the probe via website permitted the guarantee that the interviewee could not advance for the following question without filling out the previous question, diminishing, in this way, the probability of having an incomplete inquiry. Dillman (2006) alludes that the probes realized on the internet/electronic mail have the advantage of the reduction of costs, comparatively with probes sent by mail, besides the reduction of the time necessary for the answers. One of the limitations raised by Dillman (2006) is the fact that there is no guarantee that the target-public has sufficient qualifications/technical knowledge to respond to the inquiry available on an internet webpage. It should be observed that this concern does not apply to this study, because its target-public does not depend on the participation of employees on the lower echelons within the organizations and the website utilized is simple to access and fill out.

The probe begins with a brief presentation in which was highlighted the filling out of the information was voluntary as by Malina and Selto (2001). The first part of the probe, questions 1-6 was dedicated to obtaining the characteristics of the respondents. The questions 7-12 dealt with the collection of information relative to the use of financial non-financial indicators by the company, about the management control system adopted by the company, the motives for not applying the BSC. This last group of questions is a replica of a study divulged by Curado and Manica (2010). However, as the area of the study was Brazilian companies, the questions were transcribed with small adjustments to adapt the questions to the Portuguese spoken and written in this country. Two other important points related to the BSC were investigated. The first was tackled in question 10 whose objective was to evaluate in the companies that indicated that they didn't use the BSC, whether they had pondered or not its utilization. The second point referred to non-traditional perspectives, tackled in question 13 which had as its focus to verify whether the organizations had opted to concentrate themselves on the perspectives proposed by the creators of the system or find other options to adapt to the particularities of the business. The questionnaire was ended with a message of thanks and the solicitation of an e-mail address to send the results of the study to those who were interested in receiving it, according to Juhmani (2007).

The target-public to send the probe to was composed of persons responsible for the area of human resources of the companies as they are the ones responsible for the process of inclusion of the companies in the ranking of the magazine *Revista Voce S/A|Exame*. Because they were the providers of the information of the company for the composition of the intermediate and final grades of the company, they are considered the most apt to answer the questions of the inquiry.

The collection of data was realized in three phases. The first was contact by telephone with the objective of identifying and obtaining the data of the adequate respondent, like by Speckbacher *et al.* (2003) following the sending of the inquiries through an e-mail message. In this phase, 25 valid responses were obtained. In the second phase, new contacts were made by e-mail to solicit the participation in the study and another 15 inquiries were received. In the third phase, following further persistence, 6 additional responses were obtained, making a total of 46 valid responses. The total of 46 inquiries generated a response rate of 31%. Curado and Manica (2010) report a response rate of 19%, Ittner *et al.* (2003) present a response rate of 23.3%, Ismail (2007) obtained a rate of 28.6%.

The information collected was put into a database in the program SPSS (Statistical Package for the Social Sciences). The results were structured in a manner to respond to the questions of the study and for this descriptive tables were utilized as in Curado and Manica (2010). For the study of the relations between the variables put in the questions of the study, the Chi-square autonomy test from Pearson was used. This test was selected for being the most adequate for the type of analysis necessary to test the hypotheses raised.

RESULTS AND DISCUSSION

Regarding the characteristics of respondents for the formation of the ranking of the "150 Best Companies for You to Work" inscriptions were accepted from organizations all over Brazil. In this way, we had representatives from different Brazilian states. The South-East region concentrated the majority of the respondents (59%, n = 27) and within this region, the state of Sao Paulo has 43% of the total of respondents (n = 20). The region with the second highest number of respondents was the Southern region of the country with 24% (n = 11) which had the second highest state in terms of number of respondents, Rio Grande do Sul which represents 11% (n = 5) of the total answered inquiries. The North-East region, represented by the state of Maranhao, had the least participation in the study because only 1 of the respondents (2% of the total) came from this region.

Most of the companies had capital exclusively of national origin (72%, n = 33) followed by multi-national companies which represented 20% (n = 9) of the respondents. Only 2% of the companies which responded are publicly owned (n = 1) and the others were categorized as "Others".

Regarding the research question A, the results indicated that only two of those asked (4% of the total respondents) did not know the BSC. This information is convergent with a revision of the literature which highlights the BSC as a system which came and gained international interest (Norreklit, 2003; Speckbacher *et al.*, 2003).

Table 2 presents the utilization rate of the BSC in the companies analyzed. The results indicate that the BSC is utilized by 48% of the companies that responded (n = 22) but most of the companies utilize another type of management control that is not the BSC. None of the companies revealed the use of the Tableau de bord.

Table 3 presents the motives for not utilizing the BSC. The difficulties of implementation was cited by 21% of the respondents (n = 5) which is convergent with what is related by Atkinson and Kaplan (2007). Juhmani (2007)

Table 2: Management control system in use

Management control system	Frequency	%
Balanced scorecard	22	48
Tableau de bord	0	0
Other	23	50
None	1	2
Total	46	100

Table 3: Motives for not utilizing the BSC

Motives for not utilizing the BSC	Frequency	%
Not knowing the BSC	2	8
BSC cost/effect ratio	1	4
BSC implementation difficulties	5	21
Other	16	67
Total	24	100

Table 4: Type of indicators used and dimension of the company

Types of indicators used	Large		Medium		Total	
	n	%	n	%	n	%
Only financial indicators	-	-	-	-	-	-
Only non financial indicators	-	-	1	5	1	2
Both financial and non-financial indicators	25	100	20	95	45	98
Total	25	100	21	100	46	100

Table 5: Consideration of the BSC adoption

Consideration of the BSC adoption	Frequency	%
Have already considered the hypothesis and intends to adopt it in the future	7	29
Have already considered and discarded the possibility it is being evaluated	6	25
It was used, but it is not used anymore	7	29
Not knowing the BSC	2	8
Total	24	100

talks about the question of the cost in the implementation of the system but only 4% of the companies that responded presented this response as an explanation for not using the tool. The option "other" was 67% (n = 16) of the responses, demonstrating in this manner that the previous paragraphs apparently did not describe the principle motives that made the companies resolve not to adopt the BSC.

Although, most of the companies do not utilize the BSC (52%, n = 24), Table 4 permits the conclusion that 98% of the companies utilize financial and non-financial indicators in their process of making decisions and strategic management which will be found in the actual tendencies of organizational management. All of the companies of large dimensions reported using financial and non-financial indicators and none of the respondents signaled the option destined to the exclusive use of financial indicators.

Relatively to the consideration of the hypothesis of future adoption of the BSC in the 24 companies that did not utilize it (Table 5), a total of 29% (n = 7) of the organizations considered the hypothesis and intended to adopt the system in the future. The same amount of respondents are still evaluating this possibility. From the

Table 6: Justification for BSC use

Justification for BSC use	Frequency	%
Permit a global view of the company	17	30
It is the most common system	0	0
Allow communication of the strategy to entire company	13	23
Permit to align personal and departmental goals to strategy	9	16
Allow for strategy learning	8	14
Permit the strategy development	10	18
Total	57	100

Table 7: BSC benefits

BSC benefits	Frequency	%
Financial performance improvement	11	27
Internal communication improvement	10	24
Strategic learning	14	34
Evaluation and reward system more appropriate	6	15
Total	41	100

total of the respondents that do not utilize the system, 25% (n = 6) of them have already considered the possibility but have rejected it. Kald and Nilsson (2000) highlight that 61% of the companies surveyed that did not utilize the BSC probably will do so within the term of 2 years. This study presents similar results if we simultaneously consider the companies that intend to utilize the BSC in the future and those that are still evaluating this possibility.

The motives presented for the utilization of the BSC by the 22 companies that elaborated it are presented in Table 6. Owing to the choice of diverse motives for each of the respondents, the total number of responses is 57. The options most cited as a motive for the use of the BSC were: permit a global vision of the company (30%, n = 17); the communication of the strategy to everyone (23%, n = 13). None of the organizations affirmed utilizing the BSC for being the most common system.

For most of the companies, the motive for the application of the tool is the fact that it permits a global vision of the company. This data will agree with the theory, just as Atkinson *et al.* (1997), the system permits a complete vision of the performance of the organization and for Kaplan and Norton (1996b), gathers information from diverse areas of the company combined in the strategic map which permits a unified vision of the business. Diverse researchers considered that the communication of the strategy to everyone in the company is one of the big motives for applying the BSC (Kaplan and Norton, 1996b; Atkinson and Kaplan, 2007; Norreklit, 2000). This benefit is also perceived as resulting from the application of the system by the companies surveyed in this study. Kaplan and Norton (1992) narrate that strategic learning is obtained with the development of the tool and as we can see, some of the companies surveyed signaled this paragraph as motive for the use of the BSC.

Relative to the benefits of the utilization of the BSC (Table 7), the items stressed by the companies

Table 8: Utilization of non-traditional perspectives of the BSC

Utilization of non-traditional perspectives of the BSC	Frequency	%
Social and environmental perspective	11	38
Employees perspective	8	28
Suppliers perspective	5	17
Competitors perspective	4	14
Other	1	3
Total	29	100

were the following: the strategic learning obtained with the BSC (34%, n = 14); the improvement of the financial performance (27%, n = 11); the internal communication improvement (24%, n = 10); the fact of permitting more adequate reward evaluation systems (15%, n = 6).

Of the 22 companies that utilize the BSC, 45% (n = 10) resort to only the perspectives traditionally proposed by this system. The remaining 12 companies utilize other perspectives to make right the particularities of their business (Table 8). This result is similar to that presented in the reviewed literature which suggests the creation of other perspectives to attend to the particularities of each organization (Kaplan and Norton, 1996b; Axa and Bjornenak, 2005; Ittner *et al.*, 2003; Anand *et al.*, 2005). The most used non-traditional perspectives are: social and social and environmental perspective (38%, n = 11); employees perspective (28%, n = 8); suppliers perspective (17%, n = 5); competitors perspective (14%, n = 4). Note that some of these companies utilize more than one non-traditional perspective which makes the total number of responses 29.

The results of this study reveal an adoption rate of the BSC of 48% in the companies of the group “150 Best Companies for You to Work”. According to what was analyzed in the literature, this result is similar to those presented by Anand *et al.* (2005) which obtained a rate of 45% and by Rigby (2001) whose results point to the application of the system by 44% of the respondents. Comparatively with some other results, the rate obtained in this study is a little superior to those reported by Kald and Nilsson (2000) which revealed a rate of 27%; Speckbacher *et al.* (2003) which presented a rate of 26%; Ittner *et al.* (2003) whose results verified that 20% of the companies studied utilize the BSC; Curado and Manica (2010) who reported a utilization rate of the BSC of 10%, indicated that 23% of the companies studied utilize the Tableau de bord. None of the responding companies apply the French approach which could be the result of the affirmation by Epstein and Manzoni (1998) who indicated that the Tableau de bord are mostly utilized in France in particular and in the European territory in general.

To analyze the research question B, it is necessary to create two variables: one that identifies whether the companies utilize or not the BSC; the other which

Table 9: Use of the BSC and the management and strategy score

Use the BSC	Management and strategy score		Total
	0-50	51-100	
No	8	16	24
Yes	4	18	22
Total	12	34	46

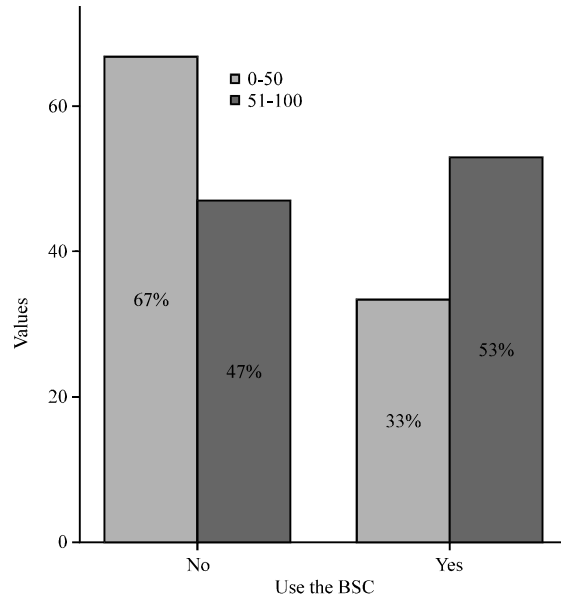


Fig. 1: Use of the BSC and the management and strategy score

hierarchizes the level of strategic alignment of the companies. The magazine Revista Voce S/A|Exame classifies the “150 Best Companies for you to Work” through a final score which includes a score of management and strategy of the company which goes from zero to one hundred (0-100). The intersection between the two variables, use of the BSC and management and strategy score is presented in Table 9.

Figure 1 illustrates the previous information and permits the observation that some homogeneity exists in the two categories of the response of the two variables which suggests that there doesn't exist any relation between its behavior.

In analyzing Fig. 1, we observe that 53% of the companies that obtained a score above 51, utilize the BSC. Relative to the companies that obtained a score equal or inferior to 50, we observe that 67% do not utilize the system. To validate this observation, the χ^2 -test was applied through the use of the SPSS Software like by Aziz *et al.* (2010) which is the adequate test if you intend to verify whether two attributes are related to each other. The hypotheses of the test are:

Table 10: Utilization of the BSC and the company dimension

Use the BSC	Company dimension		Total
	Medium	Large	
No	12	12	24
Yes	9	13	22
Total	21	25	46

- H_0 : the use of the BSC and the management and strategy score are independent
- H_a : the use of the BSC and the management and strategy score are not independent

The result of the χ^2 -test presents a value of 1,367 for one degree of freedom with a p-value of 0.242 which does not permit the rejection of a null hypothesis of the independence between the management and strategy score and the utilization of the BSC.

With the objective of analyzing research question C, it is also necessary to create two variables: one which identifies whether the companies utilize the BSC or not; the other which hierarchizes the dimensions of the companies. The classification of the responding companies in small, medium and large dimensions was accomplished based on the number of employees in accordance with the criterias defined by the Brazilian Support Service for Micro and Small Companies. The majority of the companies are of big dimensions (54%, n = 25) followed by the companies of medium dimensions which represent the remaining 46% (n = 21) of the respondents. No company of small dimensions responded to the probe. Table 10 presents the intersection of the two variables, utilization of the BSC and the dimensions of the company.

Figure 2 illustrates the previous information and also permits the observation that some homogeneity exists in the categories of the response of the two variables which suggests that there doesn't exist any relation between its behavior.

To validate this observation the χ^2 -test from Pearson was also applied, through the use of SPSS Software like by Aziz *et al.* (2010). The majority of companies of big dimensions (52%) made use of the BSC. Relative to the companies of medium dimensions, 57% of the same did not make use of the approach. In this case, the hypotheses of the test are:

- H_0 : the use of the BSC and the dimension of the company are independent
- H_a : the use of the BSC and the dimension of the company are not independent

The results of the χ^2 -test from Pearson presents a value of 0.382 for a degree of freedom with a p-value of

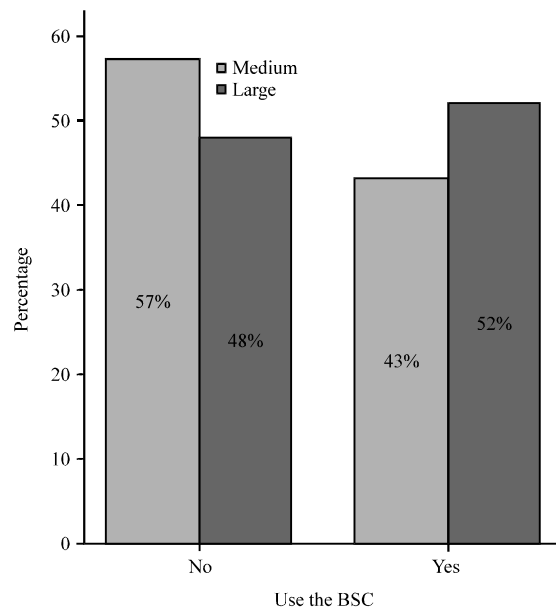


Fig. 2: Utilization of the BSC and the dimensions of the company

0.536 which does not permit the rejection of a null hypothesis of the independence between the dimensions of the company and the utilization of the BSC.

CONCLUSION

The objective of this research is to contribute to the knowledge about the utilization of the balanced scorecard in Brazil, through the development of an empirical study in the companies from the ranking of the “150 Best Companies for you to Work”. The questions of the study were formulated to respond to the more specific following questions: the degree of knowledge of this method and its rate of utilization; the association between the utilization of the balanced scorecard and the level of strategic alignment of the companies; the association between the utilization of the balanced scorecard and the dimension of the companies. Relative to the first objective, the results obtained permits the conclusion that its rate of unawareness is very low, a result which is revealed to be consistent with the literature review which indicates that the balanced scorecard has become a method that increasingly gains international interest. Additionally, the results obtained are similar to those presented by other empirical studies that reported that almost half of the companies use this system. Relative to the second objective of this study, no association was found to exist between the level of strategic alignment of the companies, measured through one of the variables of the same ranking and the utilization of the balanced

scorecard. Relative to the third question of the study, contrary to what was reported by other empirical studies, no relation was found to exist between the dimension of the organization and the use of the balanced scorecard, in other words, no evidence was found that supports the theory that the utilization of this method is influenced by the size of the organization.

This study contributes to the knowledge about the accounting practices of management in Brazil in the measure in which it permits the conclusion that the balanced scorecard is amply divulged among the Brazilian companies from the ranking of the "150 Best Companies for you to Work" which presented a utilization rate comparable to the other studies realized in other parts of the world, not with standing its utilization does not look as though it is associated to the strategic alignment of the companies or of their dimensions.

As the principal limitations associated with this work, we can present you with the following four. The first refers to the fact that no association has been encountered between the utilization of the balanced scorecard and the level of strategic alignment which can be owed to the inadequacy of the variable utilized to measure the level of strategic alignment. The second is owed to the fact that only medium and big companies had responded to the probe which could have provoked bias of the responses. This suggests the necessity of new investigations in companies of small dimensions in the sense of confirming or not the results of this study. The third refers to method of data collection utilized, questionnaire with the use of the internet could have induced some bias owing to the possibility of an erroneous interpretation of some questions, once there was not any request for clarification of doubts. It is important to narrate that the non-utilization of the Tableau de bord could not be owing to a question of rejection or non-acceptance of the system and yes to the lack of knowledge of the same.

The limitations presented suggest the necessity of new investigations in companies of small dimensions in the sense of confirming or not the results of this study. The results obtained, namely the fact that half of the companies have declared non-utilization of the balanced scorecard or the Tableau de bord but yes, another method not specified, suggests the necessity of future investigations which permit the identification of which are the other tools utilized by Brazilian companies.

REFERENCES

- Albright, T.L., C.M. Burgess, A.R. Hibbets and M.L. Roberts, 2010. Four steps to simplify multimeasure performance evaluations using the balanced scorecard. *J. Corporate Account. Finance*, 21: 63-68.
- Anand, M., B.S. Sahay and S. Saha, 2005. Balanced scorecard in Indian companies. *Vikalpa*, 30: 11-25.
- Atkinson, A. and R.S. Kaplan, 2007. *Management Accounting*. 5th Edn., Pearson International, New Jersey.
- Atkinson, A.A., R. Balakrishnan, P. Booth, J.M. Cote and T. Groot *et al.*, 1997. New directions in management accounting research. *J. Manage. Accounting Res.*, 9: 79-108.
- Axa, C. and T. Bjornenak, 2005. Bundling and diffusion of management accounting innovations: The case of the balanced scorecard in Sweden. *Manage. Account. Res.*, 16: 1-20.
- Aziz, T., M.B. Khan and R. Singh, 2010. Effects of information technology usage on student learning: An empirical study in the United States. *Int. J. Manage.*, 27: 205-217.
- Bol, J.C., 2011. The determinants and Performance effects of managers' performance evaluation biases. *Account. Rev.*, 86: 1549-1575.
- Bourguignon, A., V. Malleret and H. Norreklit, 2004. The American balanced scorecard versus the French tableau de bord: The ideological dimension. *Manage. Account. Res.*, 15: 107-134.
- Butler, J.B., S.C. Henderson and C. Raiborn, 2011. Sustainability and the balanced scorecard: Integrating green measures into business reporting. *Manage. Account.*, 12: 2-11.
- Cardinaels, E. and P.M.G. van Veen-Dirks, 2010. Financial versus non-financial information: The impact of information organization and presentation in a balanced scorecard. *Account. Organiz. Soc.*, 35: 565-578.
- Cavalluzzo, K.S. and C.D. Ittner, 2004. Implementing performance measurement innovations: Evidence from government. *Account. Organiz. Soc.*, 29: 243-267.
- Cokins, G., 2010. The promise and perils of the balanced scorecard. *J. Corporate Account. Finance*, 21: 19-28.
- Crabtree, A.D. and G. DeBusk, 2008. The effects of adopting the balanced scorecard on shareholder returns. *Adv. Account.*, 24: 8-15.
- Curado, C. and J. Manica, 2010. Management control systems in Madeira Island largest firms: Evidence on the balanced scorecard usage. *J. Bus. Econ. Manage.*, 11: 652-670.
- Debusk, G.K., R.M. Brown and L.N. Killough, 2003. Components and relative weights in utilization of dashboard measurement systems like the balanced scorecard. *Br. Account. Rev.*, 35: 215-231.
- Dillman, D.A., 2006. *Mail and Internet Surveys: The Tailored Design Method-2007 Update with New Internet, Visual and Mixed-Mode Guide*. John Wiley Press, New Jersey, USA.

- Epstein, M. and J.F. Manzoni, 1998. Implementing corporate strategy: From tableaux de bord to balanced scorecards. *Eur. Manage. J.*, 16: 190-103.
- Herath, H.S.B., W.G. Bremser and J.G. Birnberg, 2010. Joint selection of balanced scorecard targets and weights in a collaborative setting. *J. Accounting Public Policy*, 29: 45-59.
- Hoque, Z. and W. James, 2000. Linking balanced scorecard measures to size and market factors: Impact on organizational performance. *J. Manage. Account. Res.*, 12: 1-17.
- Ismail, T.H., 2007. Performance evaluation measures in the private sector: Egyptian practice. *Manage. Audit. J.*, 22: 503-513.
- Ittner, C.D., D.F. Larcker and T. Randall, 2003. Performance implications of strategic performance measurement in financial services firms. *Account. Org. Soc.*, 28: 715-741.
- Juhmani, O., 2007. Usage, motives and usefulness of the balanced scorecard: Evidence from Bahrain. *Int. J. Bus. Res.*, 7: 106-117.
- Kald, M. and F. Nilsson, 2000. Performance measurement at Nordic companies. *Eur. Manage. J.*, 1: 113-127.
- Kaplan, R.S. and D.P. Norton, 1992. The balanced scorecard: Measures that drive performance. *Harvard Bus. Rev.*, 70: 71-79.
- Kaplan, R.S. and D.P. Norton, 1993. Putting the balanced scorecard to work. *Harvard Bus. Rev.*, 71: 134-147.
- Kaplan, R.S. and D.P. Norton, 1996a. The Balanced Scorecard: Translating Strategy into Action. 1st Edn., Harvard Business Review Press, Boston, MA., USA., ISBN: 978-0875846514, Pages: 336.
- Kaplan, R.S. and D.P. Norton, 1996b. Using the balanced scorecard as a strategic management system. *Harvard Bus. Rev.*, 74: 75-87.
- Kaplan, R.S. and D.P. Norton, 2000. Having trouble with your strategy? Then map it. *Harvard Bus. Rev.*, 78: 167-202.
- Kaplan, R.S. and D.P. Norton, 2004. Measuring the strategic readiness of intangible assets. *Harvard Bus. Rev.*, 82: 52-63.
- Kaplan, R.S. and D.P. Norton, 2008. Mastering the management system. *Harvard Bus. Rev.*, 86: 62-77.
- Kaplan, S.E. and P.S. Wisner, 2009. The Judgmental effects of management communications and a fifth Balanced Scorecard category on performance evaluation. *Behav. Res. Account.*, 21: 37-56.
- Kraus, K. and J. Lind, 2010. The impact of the corporate balanced scorecard on corporate control: A research note. *Manage. Account. Res.*, 21: 265-277.
- Liedtka, S.L., B.K. Church and M.R. Ray, 2008. Performance variability, ambiguity intolerance and balanced scorecard-based performance assessments. *Behav. Res. Account.*, 20: 73-88.
- Macarthur, J., 2006. Cultural influences on German versus U.S. management accounting practices. *Manage. Account. Q.*, 7: 10-16.
- Machado, M.J., 2013. Balanced scorecard: Empirical study on small and medium size enterprises. *Rev. Bus. Manage.*, 15: 129-148.
- Malina, M.A. and F.H. Selto, 2001. Communicating and controlling strategy: An empirical study of the effectiveness of the balanced scorecard. *J. Manage. Account. Res.*, 3: 47-90.
- Neumann, B.R., M.L. Roberts and E. Cauvin, 2010. Information search using the balanced scorecard: What matters? *J. Corporate Account. Finance*, 21: 61-66.
- Norreklit, H., 2000. The balance on the balanced scorecard a critical analysis of some of its assumptions. *Manage. Account. Res.*, 11: 65-88.
- Norreklit, H., 2003. The balanced scorecard: what is the score? A rhetorical analysis of the balanced scorecard. *Account. Organiz. Soc.*, 28: 591-619.
- Northcott, D. and J. Smith, 2011. Managing performance at the top: A balanced scorecard for boards of directors. *J. Account. Organiz. Change*, 7: 33-56.
- Nunes, C.R. and M.J.C.V. Machado, 2014. Performance evaluation methods in the hotel industry. *Tourism Manage. Stud.*, 10: 23-29.
- Rigby, D.K., 2001. Management tools and techniques: A survey. *California Manage. Rev.*, 43: 139-160.
- Silk, S., 1998. Automating the balanced scorecard. *Manage. Account.*, 79: 38-44.
- Speckbacher, G., J. Bischof and T. Pfeiffer, 2003. A descriptive analysis on the implementation of balanced scorecards in German-speaking countries. *Manage. Account. Res.*, 14: 361-388.
- Sundin, H., M. Granlund and D.A. Brown, 2010. Balancing multiple competing objectives with a balanced scorecard. *Eur. Account. Rev.*, 19: 203-246.
- Taylor, W.B., 2010. The balanced scorecard as a strategy-evaluation tool: The effects of implementation involvement and a causal-chain focus. *Account. Rev.*, 85: 1095-1117.
- Wiersma, E., 2009. For which purposes do managers use balanced scorecards?: An empirical study. *Manage. Account. Res.*, 20: 239-251.
- Yang, H., G. Yang and W. Wu, 2006. Employee demography moderate involvement of decision making and adoption of management accounting innovations for Chinese accountants. *J. Am. Acad. Bus.*, 9: 338-343.