

COMPANY VALUE PERCEPTION IN THE BRAZILIAN STOCK MARKET

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Abstract

Value is a mandatory concept when discussing the relationship between stockholders and management. For all companies, value increase is expected. In the long term at least, value increase will provide conditions for a company to survive and grow. If this concept is valid what happens in the Brazilian stock market then? Do companies understand the value concept and do they use accounting for value management?

The adopted value perspective provides an internal focus. In other words, when analyzing the company from the point of view of value, the main client of the information is the internal one, that is, the management group that handles the business and needs a tool to provide support to business plans. This group is expected to contribute to the improvement of company value in the market and attend to the stockholders' expectations. If management understands and uses concepts related to value, the next step should be an investigation of how this can be realized.

"The author wants to register his gratitude for the support provided by FAPESP, CNPq and FINEP/PROFAP for the project that originated this paper. Also, must be recognized Prof. David Ziebart contributions about the aspects to be improved in the paper."

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1.Introduction

Van Horne (1995) considers that value is represented in the market by the price, which is a consequence of decisions related to investments, financing and income distribution. Although value management is an issue that mixes economics, finance and behavioral theories, accounting also provides an important contribution to that because of the instruments to compute it. In this sense, Iudicibus (1997), proposes the following steps:

- Define the function that is to be maximized;
- Obtain and evaluate current information which focuses on the function to be maximized; and
- Provide a model for decision maximization.

In a practical way, companies (Van Horne, 1995) buy assets, invest in new products and services, whose future return is expected to exceed the cost required by the financial market in relation to the risk. In this sense, value is a future concept and must be planned and controlled by the management group. The planning process must include perceptions, definitions and systems. These are expected to give better results so that the company's value in the market may rise. If this is the conceptual view, how are things actually happening in the field? At the moment, there are few researches available in relation to the Brazilian stock market, so that more information about this issue is considered very useful. As a contribution, this research intends to answer the following question: *Do the Brazilian companies with stocks in the market use management accounting information for value management?*

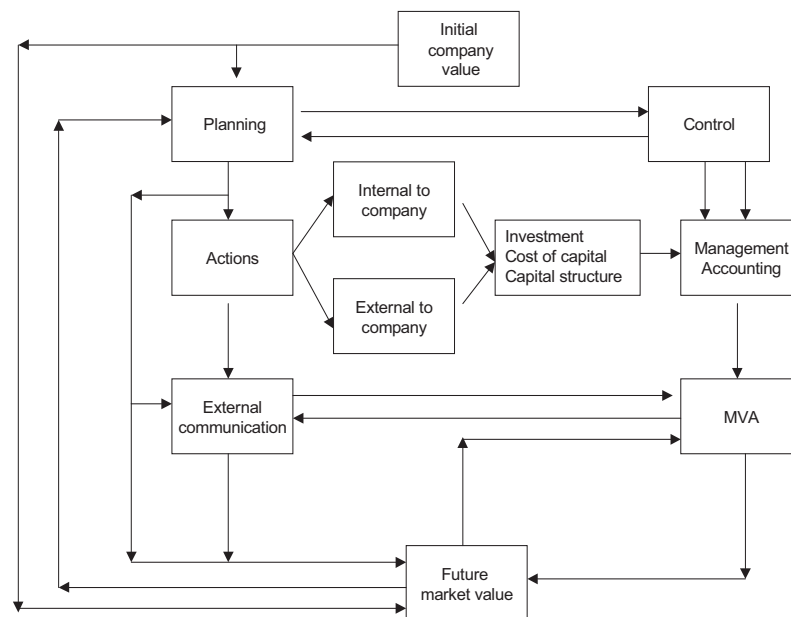
Despite the efforts to develop tools aimed at reducing the distortions produced by the ¹level of inflation and by a high degree of governmental interference in accounting, for a long time, comparisons were extremely difficult and complex. An economic stabilization process named Plano Real started in 1994. It reduced inflation and the swings in the economic environment, providing to the local organizations conditions to more comparable their performance with that of other global companies around the world.

Additionally, over the entire decade, the globalization process strongly affected different areas of the market. The most important results of this process were the opening of the local market and the privatization process. The competition with other organizations that have different views and function in the market with different levels of aggressiveness pressure management to implement or review planning and control tools. Another characteristic of the Brazilian stock market is that the exchanges are highly concentrated on a relatively small number of stocks, which means that, if the market stays merely local, it will be characterized by a relatively low level of liquidity.

¹ Specifically at the Universidade de São Paulo, professors Sérgio de Iudicibus, Eliseu Martins, Armando Catelli produced significant improvements in the price level treatment of accounting information.

In normal conditions, the stockmarket tends to show less and minor distortions and swings as a part of the global network than in the past and it is more dependent on the performance of other stock exchanges than on the internal movements. Consequently, local value management must be very strongly driven by global benchmarking considerations. In this article, we defend the opinion that the proper accounting tools may enable the organization to improve its value performance. In a coordinated effort, professionals, concepts, systems and procedures may optimize the economic results, which will reflect on the market considering that there exists a sufficient level of communication. In this way, the sense of the expression "value management" as it is used in this paper means active management accounting in support of the business. The specific objective of illustration 1 is to integrate the ideas listed below:

Illustration 1: Value management flow chart



1. Inicial company value

Starting point of an existing company or a new one.

2. Future market value projection

It reflects reality as it is perceived by the stockholders, as well as their vision for the future. This area is complex and is impacted by long-term strategic vision, market pressure, economic trends, among several other important elements. The range of value considered is important and it will indicate to the management group in which direction efforts should be driven.

3. Planning & control processes

Supposing that the prior step was solved in a reasonable way, the following one is more tactical and linked to the “how to” process. Decisions must be made consistent with the term and resources available. Strong accounting management tools are critical for dealing with this in order to reach the value management target.

4. Management accounting

Accepted accounting procedures, systems, models and expertise are required to deal with the value management.

5. Actions (internal and external to the organization)

Implementation of prior steps, which will be reflected in management accounting and will be reported, analyzed, controlled and adjusted.

6. Investments, cost and capital structure

Reflects the decision process planned to deal cope with the future value target.

7. External communication

The communication process is actually intensive and covers all of the steps described above. The reliability of this process is an important asset for the organization and should be constructed and protected. At the appropriate moments, it is important to determine the adequate level of details and to distinguish between confidential information that can be used for competitive purposes and those items of information useful for the investor.

8. MVA^{®2}

The difference between market value and management accounting figures provides the Market Value Added. It is the goodwill the market attributes to the company. The higher the MVA[®], the higher and better the future performance efficiency will be perceived by the market. In theory, it is simple and benchmarks may be considered. In practice, however, the interaction of macroeconomic factors in different sectors may produce volatility and distortions in the analysis.

In this way, value management is not a one-moment task, to be accomplished when or if the organization is in a sell/buy process. It is the main issue in the life of the organization and must be permanently dealt with. In order to identify the usage of accounting tools for value management, the main goal of this research is to identify what the companies **think** about, **know** about and which accounting tools they **use** for value management. The field research can be justified by the fact that, even though the stock market is very important, not many researches focus on value for analyzing it.

2. Hypothesis

Supposing that management acts in accordance with the priorities, they are oriented towards those issues that are important for realizing their priorities. Some hypotheses were built to support the analysis:

Hypothesis 0: *They do not use the value management concept.* Possible reasons for this are:

- Do not consider it important;
- Do not know about it;
- Think that it is not possible;
- Do not have resources (human, methodological or others); or
- Others.

Hypothesis 1: *They use the value management concept.* It demands some additional questions, which will be divided in two groups:

Group one: *The companies use the value management concept but do not use accounting information to support it.* Possible reasons are:

- Do not know about it;

² MVA[®] and EVA[®] are Stern Stewart trade marks.

- Think that it is not possible;
- Do not have resources (human, methodological or others); or
- Others.

Group two: *The companies that consider value management important and use accounting to support it.*

3. Brazilian stock market

The *Bolsa de Valores de São Paulo* (BOVESPA) is the most important stock market in Latin America. Before the Asian and Russian crises, in dollars, it was number eight in the world when considering market value of stocks. After the Brazilian maxi devaluation of January 1999, as demonstrated in table 1, it dropped to the eleventh place in the ranking. Illustration 2 compares the size of various stock markets:

Illustration 2. Stock market comparison

In US\$ billions

Stock market	Market value in April/96 (1)	Market value in July/99 (2)
NYSE	6,001	11,187
Tokyo	3,769	3,346
London	1,356	2,585
Frankfurt	572	1,167
Paris	NA	1,057
Hong Kong	341	455
Taiwan	227	303
Seoul	205	246
Singapore	158	156
BOVESPA	169	142

Source: Revista Bovespa June/96 (1)
Revista Bovespa October/99 (2)

To be usable, the real number of companies whose stocks are negotiated in the stock market must be adjusted. Some entities included in the BOVESPA figures distort³ the analysis and must be excluded (Illustration 3):

Illustration 3. Companies in BOVESPA stock market

Description	Number of entities
Total	535
(-) Pension plans	13
(-) Holdings	67
=Population of the research	455

Source: BOVESPA file.

Although a census was not the goal of the research, all the companies (455) received the questionnaire. About 23% of the companies returned the form by Internet.

³ Like the holding companies and pension plans.

Illustration 4. Return performance

Description	Number of entities
Research population	455
Total returned questionnaires	106
(-) Number of eliminated questionnaires	8
(-) Non acceptable questionnaires	4
= Valid questionnaires	94
% of valid questionnaires	20.7

4. Research structure planning

The field research was planned in accordance with the following points:

4.1. Sample

This study is classified in the following terms:

- **Descriptive study:** the objective is to identify, on the basis of primary data, the most important issues that should be analyzed in a deeper way in future studies. A similar research, with a focus on value, is not available for Brazilian companies; and
- **Non-probabilistic sample:** all of the companies (the whole population) received the questionnaire and, if they returned it, they were considered in the analysis.

106 questionnaires were returned and 94 were considered properly filled out (20.7 % of total population sent it back properly answered), which is considered a reasonable rate of return, although, isolated, it does not guarantee the research quality.

The population was classified according to three criteria: by sector of economy, by region of the country and by net sales.

4.2. Questionnaire

The questionnaire, which was produced in accordance with the hypotheses and adjusted after a pretest developed in a group of five companies, was considered a proper tool for capturing the required information. Some difficulties arose, which were related to questions that, in order to be formulated in a language understood by management, became less specific in an academic sense. A hot line was made available to provide information and solve doubts during the process of filling out the forms.

4.3. Group of questions

In order to facilitate research planning and information analysis, the questionnaire was built according to the following distinct groups of information:

- **Group 1: Management understanding**
These questions were aimed at capturing the executive team's understanding of the company value management.
- **Group 2: Usefulness of the concept for the company**
Considering that the value concept is understood by the company, this section tries to identify if the issue is part of the routine of the company or if it is only treated when/if the organization may be sold.
- **Group 3: Accounting usage in value management**

This group of questions focuses on the identification of how accounting is used by the company for contributing to value management.

- **Group 4: Company profile**

The various companies were characterized in order to identify some particular traits that could be correlated with value management.

- **Group 5: Respondent profile**

This profile is an attempt to avoid bias due to the wrong person filling out the form. Hierarchical position, education and company knowledge were considered important. These questions do not guarantee unbiased results but may provide useful information.

In many cases, more than one answer was possible and this was captured by the questionnaire.

4.4. Statistical analysis

For the purpose of this research, frequency distribution of the answers received from companies was computed. The Pearson Chi-Square test also has to be considered in order to identify if there is dependence between some variables, which would explain certain results.

5. Main findings

The information provided by the questionnaire returns in accordance with the groups mentioned above:

Illustration 5. Group 1: Management understanding

1. How does the company (management) understand value?

Description	Number of answers	Frequency
What should be paid by the buyer if the company is sold?	48	37.5%
What the company is worth for the stockholders at a certain moment	65	50.8%
What is demonstrated by the managerial balance sheet	9	7.0%
Others	6	4.7%
Total	128	100.0%

2. Value is a concept related to:

Description	Number of answers	Frequency
Market	79	61.7%
Accounting balance sheet figures	14	10.9%
Specific evaluation made by external consultants	30	23.4%
Others	5	3.9%
Total	128	100.0%

3. What kind of decisions may impact company value?

Description	Number of answers	Frequency
The ones captured by periodical management profit and loss	53	31.7%
Investment management (Fixed assets and working capital)	64	38.3%
Interest rates management	37	22.2%
Others	13	7.8%
Total	167	100.0%

4. If the company has a performance bonus program, the eligible group has as its drive:

Description	Number of answers	Frequency
Management income for certain period (quarter, semester or year)	54	48.2%
Cash increase for certain period (Quarter, semester or year)	19	17.0%
Positive <i>Economic value added</i> (EVA [®]) for certain period (quarter, semester or year)	6	5.4%
Value increase for certain period (Quarter, semester or year)	11	9.8%
There is no performance program for certain period (quarter, semester or year)	19	17.0%
There is a program but not related to accounting/financial results	3	2.7%
Total	112	100%

Group 1 comments:

The properly view about the issue, that is, the consideration of value as a continuous management process, is shared by the majority (50.8% answered that value is what the company is worth for the stockholders at a certain moment). Although a big portion of the sample is not considering value management as a proactive and continuous activity, they are aware of the actions that may improve value.

For about 37.5%, value is a concept that is only useful at a time of circumstantial acquisition, which is a restricted view. 61.7% of the total recognizes that value is really an external variable related to the market.

There is a relative balance in the relationship between the various company decisions and their impact on value, which was expected by the researcher.

Few companies link management performance with value evolution. It is simply non acceptable, neither from the perspective of performance nor from the point of view of the shareholders. It is a practical way of capturing the low level of importance and comfort that management attributes to the tool. It is one important focus for improvement.

Illustration 6. Concept usefulness for the company

1. Did company value increase in the period 1994-1997?

Description	Number of answers	Frequency
Yes	77	81.9%
No	8	8.5%
Not identified	9	9.6%
Total	94	100.0%

2. Company value is a concept that your company uses for:

Description	Number of answers	Frequency
Management performance evaluation	19	12.9%
Company selling proposal analysis	19	12.9%
Company comparison in the market	40	27.2%
Business plan and control	50	34.0%
Do not use it	19	12.9%
Total	147	100%

3. If you have answered “Do not use it” in prior question, the reasons for that are:

Description	Number of answers	Frequency
Do not consider important	3	12.0%
It is not clear how to do	9	36.0%
Although it was considered important by the management and they had knowledge to do it, they hadn't resources to cope with it	3	12.0%
Although it was considered important by the management and they had knowledge to do it, they hadn't information systems to cope with	5	20.0%
Although it was considered important by the management and they had knowledge to do it, they hadn't experts to cope with it	3	12.0%
Although it was considered important by the management and they had knowledge to do it, they hadn't time enough to cope with it	1	4.0%
Although it was considered important by the management and they had knowledge to do it, they do not need due to they are affiliate (headquarter must do that)	1	4.0%
Total	25	100%

If you answered question 3, must jump to question 5.

4. Who IS at the moment responsible for company value management?

Description	Number of answers	Frequency
The President (number one in the company)	16	17.8%
Management team	71	78.9%
Exclusively the Chief Financial Officer	0	0.0%
Others	1	1.1%
Nobody	2	2.2%
Total	90	100%

5. Who **SHOULD BE** responsible for company value management?

Description	Number of answers	Frequency
Only the shareholders	1	1.1%
Management team	81	90.0%
Exclusively the Chief Financial Officer	1	1.1%
Others	7	7.8%
Nobody	0	0.0%
Total	90	100%

Group 2 comments:

81.9% of the total informed that company value rose in the period 1994-1997. This period, after the implementation of the Plano Real, is important due to a relatively stable market which was not distorted by unorthodox macroeconomic plans. In this research no cross check was made with the actual results. The companies' answers were simply accepted.

For 34% of the companies, the value concept is mainly used to build the Business Plan, which requires clear definitions, dedicated information systems, experts and a relation between management and performance appraisal. These demands cannot be attended to without a structured management accounting information system. Another important use of the value concept should be the making of comparisons with other companies in the market for the purpose of benchmarking. These comparisons would provide useful information for the business plan.

With respect to who **is** responsible for value management, the item “Management team” was the most significant answer with 78.9% of the answers. For 17.8%, value management is the exclusive responsibility of the number one (president, general manager or similar position), which is not a proper view. On the other hand, 90.0% consider that the management team **should be** responsible for value management, which is a healthy perception, even though some contradictions arise for those that do not use the concept, since they do not consider it important. Obviously, the gap between what **is** and **should be** is important for the improvement of management.

36% of the companies that do not use the value concept for management argue that it is not clear how it should be dealt with. In other words, it is possible to presume that they do not know how to do it. Another important reason is that 20% of the companies do not have the proper information systems for that. The companies that consider value management unimportant and have no sufficient resources represent about 12% of the total.

Illustration 7: Group 3. Accounting usage in value management

1. Which methodology allows the company to manage value in a better way?

Description	Number of answers	Frequency
Management income according to FASB or other similar method	35	24.1%
EVA [®] (<i>Economic value added</i>), MVA [®] (<i>Market value added</i>) and company market value	55	37.9%
Income computed for tax purposes	7	4.8%
Cash flow produced	43	29.7%
Others	5	3.4%
Total	145	100%

2. Which is the long-term financial indicator adopted by the company?

Description	Number of answers	Frequency
Return on Equity	57	38.0%
Cash flow produced	56	37.3%
<i>Economic value added</i> or other similar residual income	27	18.0%
Other	5	3.3%
None	5	3.3%
Total	150	100%

3. How often is information about company value provided to you?

Description	Number of answers	Frequency
I do not receive	14	14.6%
Monthly	37	38.5%
Quarterly	21	21.9%
By Semester	9	9.4%
Annual	15	15.6%
Total	96	100%

4. Does management receive a comparison and analysis of the relationship between market company value and information provided by the accounting statements?

Description	Number of answers	Frequency
Yes, systematically	43	46.7%
Yes, when it is required and asked	27	29.3%
It is not done	22	23.9%
Total	92	100.0%

Group 3 comments:

This group of questions intends to cross what the companies have with what they should have. 37.9% of the total consider that EVA[®] (Economic Value Added), MVA[®](Market value added) and market company value should be the best instruments to manage value. Other significant preferences pointed to cash flow produced (29.7%) and management income (24.1%). It is interesting that, when questioned about which long term financial indicator the company currently uses, EVA[®] does not exceed 18%, while Return on Equity reached 38% and cash flow produced 37.3%.

In 38.5% of the cases, information about company value is provided on a monthly basis. Another significant response is the provision on a quarterly basis, which is given by 21.9% of the companies. A market comparison between market value and accounting information is realized in a systematic way by 46.7% of the total and realized when requested by 29.3%. The number of companies that do not make market comparisons is 23.9%.

Illustration 8.Group 4. Company profile

1.The stock control is originally:

Description	Number of answers	Frequency
National - private control	68	72.3%
National – government control	9	9.6%
Multinational	17	18.1%
Total	94	100.0%

2.Main sector in which the company is competing⁴:

Description	Number of answers	Frequency
Industrial	56	52.8%
Commerce – retail	11	10.4%
Commerce – Others	6	5.7%
Financial services	8	7.5%
Other services	25	23.6%
Total	106	100%

3.Number of employees working in the company:

Description	Number of answers	Frequency
Up to 50	2	2.2%
From 51 to 100	1	1.1%
From 101 to 250	3	3.2%
From 251 to 500	9	9.7%
From 501 to 1000	11	11.8%
From 1001 to 2000	17	18.3%
From 2001 to 4000	18	19.4%
From 4001 to 8000	17	18.3%
More than 8001	15	16.1%
Total	93	100%

4.The company has activities in the Brazilian market for a period that is:

Description	Number of answers	Frequency
Shorter than 5 years	6	6.5%
Equal or longer than 5 and shorter than 10 years	2	2.2%
Equal or longer than 10 and shorter than 15 years	1	1.1%
Equal or longer than 16 and shorter than 20 years	2	2.2%
Equal or longer than 21 and shorter than 30 years	12	13.0%
Longer than 30 years	69	75.0%
Total	92	100%

5.Company net sales is properly identified in the range of:

Description	Number of answers	Frequency
Lower than R\$ 1 millions	1	1.1%

⁴ Multiple answers were received and processed.

Equal or higher than R\$ 1 and lower than 10 millions	3	3.2%
Equal or higher than R\$ 10 and lower than 20 millions	1	1.1%
Equal or higher than R\$ 20 and lower than 50 millions	8	8.6%
Equal or higher than R\$ 50 and lower than 100 millions	13	14.0%
Equal or higher than R\$ 100 and lower than 200 millions	10	10.8%
Equal or higher than R\$ 200 and lower than 500 millions	10	10.8%
Equal or higher than R\$ 500 and lower than 1000 millions	19	20.4%
Equal or higher than R\$ 1 and lower than 5 billions	20	21.5%
Equal or higher than R\$ 5 and lower than 10 billions	2	2.2%
Equal or higher than R\$ 10 and lower than 20 billions	2	2.2%
Equal or higher than R\$ 20 and lower 30 billions	0	0.0%
Equal or higher than R\$ 30 and lower than 50 billions	1	1.1%
Higher than R\$ 50 billions	3	3.2%
Total	93	100%

Group 4 comments:

As opposed to the past situation and due to the privatization process in course, most of the companies are private or national (72.3%), with a significant percentage of participants from the industrial sector (52.8%) and non-financial services (23.6%).

When looking at the employee numbers, there is a certain balance between the groups with more than 250 employees and the cumulative frequency for the organizations with more than 20 years of history, which is 88.0%. In other words, we are talking about companies that have known the market for a long time.

Finally, companies with net sales that range from R\$ 50 millions/year up to R\$ 5 billions constitute the most significant group of respondents.

Illustration 9.Group 5. Respondent profile

1.At the moment, your position in the company is:

Description	Number of answers	Frequency
President, General Manager or similar (number one)	3	3.5%
Director	9	10.5%
Manager	40	46.5%
Other	34	39.5%
Total	86	100%

2.Levels of distance from your position to the number one:

Description	Number of answers	Frequency
No gap	25	26.9%
One level	43	46.2%
Two levels	21	22.6%
More than two levels	4	4.3%
Total	93	100%

3.Your age range is:

Description	Number of answers	Frequency
Younger than 25 years	0	0.0%
Equal or Older than 25 and younger than 35 years	17	18.1%

Equal or older than 35 and younger than 45 years	27	28.7%
Equal or older than 45 and younger than 55 years	38	40.4%
Equal or older than 55 and younger than 65 years	10	10.6%
Equal or older than 65 years	2	2.1%
Total	94	100%

4.You have been in this position for:

Description	Number of answers	Frequency
Less than 1 year	13	14.0%
More than 1 year and less than 5 years	44	47.3%
More than 5 years	36	38.7%
Total	93	100.0%

5.Your level of education is (if it is useful you may indicate more than one option):

Description	Number of answers	Frequency
Brazilian second grade	0	0.0%
Business administration	38	31.4%
Economics	31	25.6%
Accounting	32	26.4%
Engineering	15	12.4%
Chemistry	1	0.8%
Others	4	3.3%
Total	121	100%

Group 5 comments:

In contrast with some researches, in which the respondent's answers indicate conclusive factors, in this case, the importance is lower, since it is not possible to judge the respondent's impact on the issue. Nevertheless, he is expected to provide reliable information. An important portion of the executives that answered the questionnaire is part of high-level management (60% of the total, is the sum of president, director and managers).

About 40% of the respondents are between 46 and 55 years old. A majority of the respondents have occupied their current position for more than one year and less than five years.

100% have completed a graduate course. The most common courses cited are business administration (31.4%), economics (25.6%) and accounting (26.4%). These results indicate a sufficient background to understand and manage to fill out the research questionnaire.

6. Dependence analysis

In order to improve the understanding of the dependence relationship between variables considered important, the Pearson Chi-Square test was applied⁵. The cross analysis considers the main topics presented in the questionnaire groups, considering 0.05 as the defined level of significance. In sequence, it was compared with the computed p-value⁶, which indicates the frontier to reject the null hypothesis of independence. The higher the positive spread of p-value versus defined level of significance, the higher is the inference in the variable independence. The argument for applying this test is that a high degree of dependence between some issues may indicate the consistency between them. In this way, a preliminary analysis treated each of the topics, expressing if dependence or independence was expected between the variables. The cross analysis considered is the following:

6.1. Topic: **What is the company (management) understanding about value?** was tested with **Company value is a concept that your company uses for**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	4.154	8	0.843

Expected result: Dependence was expected. According to the understanding of the concept, usage may be defined and applied.

Finding: Test demonstrated that they are independent with a significantly high p-value.

6.2. Topic: **What is the company (management) understanding about value?** was crossed with **Who IS, at the moment, responsible for company value management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	3.144	2	0.208

⁵ In most cases after the sparse adjustment due to the less than five elements rule.

⁶ If p-value is lower than the defined level, it means that the null hypothesis (independence of the two variables) is rejected.

Expected result: Dependence was expected. The responsibility to deal with value management is critical.

Finding: Test demonstrated that they are independent, but this test is the closest to the defined level of confidence.

6.3.Topic: **Value is one concept related to** was crossed with **Company value is a concept that your company uses for**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	1.100	4	0.894

Expected result: Reasons for dependence and reasons for independence may be found.

Finding: Test demonstrated that they are independent with a significantly high p-value.

6.4.Topic: **Value is one concept related to** was crossed with **Who IS, at the moment, responsible for company value management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	1.086	2	0.581

Expected result: Despite strong arguments in favor of a dependence relationship, for some, in a non-proactive market view, may produce a diffused view of responsibility, which may be consistent with independence of the variables.

Finding: Test demonstrated that they are independent.

6.5.Topic: **What kind of decisions may impact company value?** was crossed with **Company value is a concept that your company uses for**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.522	12	0.998

Expected result: A dependence relationship should be the most expected trend.

Finding: Test demonstrated that they are independent with an extremely high p-value.

6.6.Topic: **What kind of decisions may impact company value?** was crossed with **Who IS, at the moment, responsible for company value management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	3.325	3	0.344

Expected result: A dependence relationship should be the most expected trend. After defining actions, responsibility should be mandatory for the implementation of value management.

Finding: Test demonstrated that they are independent.

6.7.Topic: **What is the company (management) understanding about value?** was crossed with **Which methodology allows the company better to manage value?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	0.321	2	0.852

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, a methodology may be useless.

Finding: Test demonstrated that they are independent with a significantly high p-value.

6.8.Topic: **What is the company (management) understanding about value?** was crossed with **Which is the long-term financial indicator adopted by the company?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	1.658	2	0.436

Expected result: Reasons for dependence and reasons for independence may be found. In the case of a non-proactive view, an indicator is not useful.

Finding: Test demonstrated that they are independent.

6.9.Topic: **What is the company (management) understanding about value?** was crossed with **How often information about company value is provided to you?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	4.609	4	0.330

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, internal information is not useful.

Finding: Test demonstrated that they are independent. It was one of the lowest p-values.

6.10.Topic: **What is the company (management) understanding about value?** was crossed with **Comparison and relationship analysis between market company value and information provided by the accounting statements are prepared for the management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	0.047	4	1.000

Expected result: Even if the company understands value, information is required. As a consequence, dependence was expected.

Finding: Test demonstrated that they are independent with the highest p-value possible.

6.11.Topic: **Value is one concept related to** was crossed with **Which methodology allows the company better to manage value?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.635	6	0.853

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, information about methodology is not useful.

Finding: Test demonstrated that they are independent with a high p-value.

6.12.Topic: **Value is one concept related to** was crossed with **Which is the long-term financial indicator adopted by the company?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.503	4	0.644

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, information about financial indicator is not useful.

Finding: Test demonstrated that they are independent with a high p-value.

6.13.Topic: **Value is one concept related to** was crossed with **How often information about company value is provided to you?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.718	6	0.843

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, information about methodology is not useful.

Finding: Test demonstrated that they are independent with a high p-value.

6.14.Topic: **Value is one concept related to** was crossed with **Comparison and relationship analysis between market company value and information provided by the accounting statements are prepared for the management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures			

Computation was not possible.

6.15.Topic: **What kind of decisions may impact company value?** was crossed with **Which methodology allows the company better to manage value?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	3.458	6	0.750

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, information about methodology is not useful.

Finding: Test demonstrated that they are independent with a high p-value.

6.16.Topic: **What kind of decisions may impact company value?** was crossed with **Which is the long-term financial indicator adopted by the company?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.778	6	0.836

Expected result: Reasons for dependence and reasons for independence may be found. If a non-proactive view is found, a long-term financial indicator is not useful.

Finding: Test demonstrated that they are independent with a high p-value.

6.17.Topic: **What kind of decisions may impact company value?** was crossed with **How often information about company value is provided for you?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	5.172	8	0.739

Expected result: Dependence was expected.

Finding: Test demonstrated that they are independent with a high p-value.

6.18.Topic: **What kind of decisions may impact company value?** was crossed with **Comparison and relationship analysis between market company value and information provided by the accounting statements are prepared for the management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	2.391	6	0.880

Expected result: Dependence was expected.

Finding: Test demonstrated that they are independent with a high p-value.

6.19.Topic: **Did company value increase in the period 1994-1997?** was crossed with **Which is the long-term financial indicator adopted by the company?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	1.517	2	0.468

Expected result: Great dependence was expected due to knowledge about the results.

Finding: Test demonstrated that they are independent.

6.20.Topic: **Did company value increase in the period 1994-1997?** was crossed with **Comparison and relationship analysis between market company value and information provided by the accounting statements are prepared for the management?**

Description	Computed value	Degree of freedom	P-Level of significance
Pearson Chi-Square figures	9.168	2	0.010

Expected result: Dependence was expected due to knowledge about the results. If the company knows its results, this is due to the existence of an information system.

Finding: It was the only test which demonstrated dependence between the variables.

It was impossible do realize tests with the topics referring to the organizations that do not use value management, due to the low number of elements.

In summary, the only crossing test that indicates dependence between the variables is the one that crossed, **Did company value increase in the period 1994-1997?** with **Comparison and relationship analysis between market company value and information provided by the accounting statements are prepared for the management?** It probably indicates consistency between the information and the way in which it is available to management. All other crossing tests indicate independence between the variables. Ranking some results, going from those that are closest to the significance level to those that are more distant from the significance level, we obtain the following:

What is the company (management) understanding about value? was crossed with **Who IS, at the moment, responsible for company value management?**

What is the company (management) understanding about value? was crossed with **How often information about company value is provided to you?**

What kind of decisions may impact company value? was crossed with **Who IS, at the moment, responsible for company value management?**

What is the company (management) understanding about value? was crossed with **Which is the long-term financial indicator adopted by the company?**

Did company value increase in the period 1994-1997? was crossed with **Which is the long-term financial indicator adopted by the company?**

Although the significance level of 0.05 was not reached by the crossing elements above, it seems interesting to go through the ones that are closest to the significance level. The main points perceived are:

1. The definition of responsibility seems to be linked not only to understanding but also to the kind of decisions made. It may indicate that responsibility is relatively well-defined by the companies in the value management process. More incisive affirmation requires additional empirical research;
2. The relationship between understanding and “how to” makes sense and points out that, once the methodology dilemma is solved, value management may be increased. If this is true, the support of management accounting support is critical to achieve this; and
3. The last crossing test also pointed out a relation between information provided and “how to” , which reinforces the argument mentioned in item 2 above.

7.Conclusions

The analysis is based on the concept of value management and how it is understood by those Brazilian companies whose stocks are listed on the local stock exchange (BOVESPA). Most companies are really considering the concept in a proper way. However, especially from the standpoint of the stockholder, some respondents understand and deal with value management not as a continuous and permanent issue but as something to be considered on specific occasions. It may partly explain some issues in relation to local stock performance and a relative lack of actions to improve it. After analyzing the concept, its usage was investigated. The inclusion of the value management concept in the business plan is the most efficient way to implement and deal with it. This approach requires the definition of who is responsible for value management and it became very clear that the answers pointed out the whole management team as responsible.

Moving on, the next step refers to the “how to” issue. Strictly limiting our discussion to the sample used, we may consider that *the Brazilian companies with stocks in the market use management accounting information for value management* from two perspectives:

- One perspective refers to the instrument used by the company. In order to deal with long-term management and, consequently, to manage value, most of the respondents use several kinds of information provided by management accounting, such as the Return on Equity index, EVA[®], cash flow; and
- the other perspective refers to information about value which comes from internal and external areas. This cannot be dealt with without accounting models.

When asked about reasons for not practicing value management, although several points were mentioned, many companies indicated they do not know how to manage value (36%) and do not have any systems available for dealing with it (20%). In the perception of the author, this is very important information and management accounting has the conditions to improve this situation and answer the demand. Not only systems, procedures and reports, but also training is required to deal with this problem, due to the link with understanding about the issue. Specifically talking about instruments, residual income (and EVA[®] is the most used) is perceived as the most efficient, although it is not, at the moment, the most used one.

Most respondents very clearly agree on the fact that the entire management team is responsible for value management. It is curious that, despite this clear definition of responsibility, the relationship between value management and individual performance appraisal is not significant for most of the sample. Even though there does not, so far, exist any empirical evidence to support this, it may be one important reason for the failure of companies that do not have a strong focus on value management.

Considering that knowledge is the first step required to improve anything, this research tries to improve the understanding of the Brazilian stock market. It is expected that these research results will be used in the future to improve the knowledge of the variables treated.

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