

Comparative Analysis of Performance of the 50 Biggest and Best Enterprises in Brazil

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Abstract: *This study aims to verify if there are significant differences in the performance of companies regarding growth, adjusted net profit, return on equity, wealth created and general liquidity among the companies, indicated by the magazine Exame/Você S/A, as the best to work for and the not indicated ones among the 50 biggest companies of Brazil published by the magazine Exame Melhores e Maiores from 2013. In the literature review, it was found authors that reported that the human knowledge became of utmost importance in the area of knowledge management, due to its added value for the companies. Therefore, the business result is strongly influenced by the behaviour and motivation of the employees. With the current competitive scenario, the organizations are in search of factors that differ them from their competitors, so they can excel, even minimally, ensuring a distinguished position of better visualization to the public before an immensity of products and services suppliers, or by more appealing price, better quality of service provided, etc. The current study is based on the Theory of Agency, an economic theory that seeks to analyze the relation of interests between the principal (leaders) and the agent (decision-making), as well as the impacts of this relation in the results collected by the company. The investigation method started with the data collection of companies rated as Best to Work for, according to the magazine Você S/A. Afterwards, it was calculated the performance indicator of the selected sample; applied statistical techniques in the data collection, performed comparisons of the values obtained of each sample; and finally, analyzed the results of these comparisons. The type of adopted methodology was quantitative, of descriptive nature based on statistical tests of mean difference to verify possible differences among the groups of selected companies. Additionally, it was used the Cluster Analysis to cluster the companies that had similarities in relation to the studied variables. In the end, it was found that the indicated companies as Best to Work for did not present a superior performance if compared to the not indicated ones.*

Keywords: *Performance of companies, human knowledge, behaviour and motivation.*

1. INTRODUCTION

The performance of an organization is measured by economic and financial indicators. To assess the wealth of the organizations it requires some kind of measurement. More than that, in the current corporative world, the main goal of the enterprises is to know if this wealth created value for its stakeholders; therefore, to know if this goal was reached, it is necessary a way to measure the development of the enterprises. It is in this context that the current research became pertinent, because the accountability is the source of information to evaluate the enterprises' economical performance and the accounting statements published by the companies have been used as one of the parameters to measure performance since the beginning of its appearance (Bagheri et al., 2013).

Among the different tools used to measure the performance the balance sheet analysis stands out. This is a management tool, which has as a goal to identify and report the current financial-economic

position of the company, based on information given by the company, being able to distinguish both the causes that led to such positions and the trends for its future (AssafNeto, 2002)

According to Matarazzo (1998) the balance sheet analysis tool arose and developed within of the North American banking system in the ends of the nineteenth century, given the requirements of the bankers by the balance sheets of borrowers companies, as a form to minimize the defaults risks. In this scenario, the accounting literature, still immature, addressed the importance of making analysis of the demonstrations, however, the ideas still were vague as to what to compare.

According to the same author (1998), on one hand there were concerns about the manner of preparation of the analysis, on the other hand, one came across statements that were not properly prepared for this purpose, which would eventually hinder the analysis. However, throughout the years it was developed better practices regarding the ways to compare the different items in the balance sheets, as well as in the production of these demonstrations, which contributed greatly to the outcome of the dynamic analyzes of performance.

The balance sheets are performed through the horizontal and vertical analysis, and by financial-economic indicators of development looking for results that highlight and allow evaluating the companies' financial-economic situation. Such indicators are presented as support tools to evaluate the processes of a company (Freire et al., 2007), it should still be able to quantify and track them, in a way that it helps to diminish its subjectivity, helping into making right and more realistic decision regarding the companies' situation (Mansor et al., 2014).

In the current capitalist economic scenario, a fierce competitive battle settled, lidding companies to tireless searches for a factor that differ them from their competitors, so they can excel, even minimally, ensuring a distinguished position of better visualization to the public before a immensity of products and services suppliers, or by more appealing price, better quality of service provided, etc.

It can be noticed that in the current entrepreneur scenario, the growth of the attention given by the companies regarding the management of human resources, a master key to the maintenance of business diversification and to the search for improvements in the financial performance. As it can be seen:

In a recent research performed by the USA Today and by the Deloitte and Touche, almost 80% of the executives said that the importance of the Management of Human Resources in their companies grew substantially in the last ten years, and two third declared that the cost of Human Resources are seen as a strategic investment, and not simply as a cost to be minimized (Hrfocus, 1996, p.14 cited by Bohlander et al., 2003, p.2).

If on one hand people represented a fundamental role in the business environment, nowadays they perform a more central role, being responsible for obtaining a competitive advantage for the company, standing out mainly in the areas based on knowledge (Bohlander et al., 2003).

Following the same line of thoughts Colauto and Beuren (2005) reported that the human knowledge became of utmost importance in the era of knowledge management, due to its added value to the companies. Being often more important the person responsible to make the final decisions of the company than the data itself that is going to subsided the decision process (Callado and Callado, 2000).

Damodaran (2007, p.293) stresses that "a company with a workforce well trained, loyal and intelligent must be more worthy than a similar one, with a staff les specialized".

Therefore the general goal of this study is to verify if there are significant differences in the performance of companies regarding growth, adjusted net profit, return on equity, wealth created and general liquidity, among the indicated companies that are best to work for, by the magazine Exame/Você S/A, and the ones that were not indicated among the 50 biggest companies in the world discloses by the magazine Exame Best and Biggest in the year of 2013.

For such, the study sought, firstly, to perform a survey of the classified companies as Best and Biggest by the magazine Exame, as well as the companies classified as Best to Work for, according to the classification and publication of the magazine Você S/A; to calculate the performance indicators of the selected sample; to apply statistical techniques in the data collection; to perform comparisons with the values obtained of each samples, and by the end, analyze the results of these comparisons.

The general hypothesis that guides this study is that the performance of the companies indicated as the best to work is better if compared to the companies that were not indicated among the biggest 50 companies cited by the magazine Exame in the year of 2013.

The research became pertinent since it seeks to observe if the greater attention given by the companies to the managements of human resources directly affects the increase of the companies' financial-economic performance.

In the scientific environment, it becomes relevant due to the scarcity of academic studies that intend to relate business performance with investment in the management of human resources (criteria used by the magazine Exame to select the best companies to work for), in order to improve the professional work environment and as a motivator agent for the collaborators' performance.

The current study is based on the Theory of Agency, an economic theory that seeks to analyze the relation of interests between the principal (leaders) and the agent (decision-making), as well as the impacts of this relation in the results collected by the company (Jensen and Meckling, 1976). Moreover, this study is also based in the concept of performance, in the performance evaluation and satisfaction at work.

2. THEORY OF AGENCY - EMERGENCE AND INFLUENCE ON PERFORMANCE MEASURES

The development of the Theory of Agency happens in 1973 with the work "The Economic Theory of Agency: The Principal's Problem" of Stephen A. Ross. According to the author, the relation of agency is one of the oldest and common ways to systematize social interaction.

The topic was resumed in 1976 by Jensen and Meckling (1976). They define an agency relationship as a contract in which one or more persons (the principal) engage another person (the agent) to perform some service on behalf of the principal, delegating his authority decision making. Millions of people rely billion dollars, francs, pesos, etc. voluntarily, of their personal wealth managers under the care based on a complex set of relations contracts that outline the rights of the parties involved. This is complex, because the agent's wealth became conditioned to the behaviour, willingness, and stimulus of the agent. At this points, the theory of agency starts to impact the organizations performance, because the following question emerges: how to structure the contractual relationship (including incentives compensation) between the principal and the agent providing appropriate incentives for the agent to make choices that maximize the main welfare and hence the organization's performance?

If both sides in the relation are utility maximizers, there is a good reason to believe that the agent will not always act for the best interests of the principal

The principal can limit the divergences of his interest by stablishing appropriate incentives (cash or not) to the agent (bounding costs) and incurring monitoring costs designed to limit the extravagant activities of the agent. After all, it is generally impossible for the principal to ensure that the agent will take great decisions from the principal's point of view (Jensen and Meckling, 1976).

In great part of relations of agency, besides the monitoring costs there will be some divergence between the agent's decision and the decisions that maximize the wellbeing of the principal. The equivalent amount of the reduction in the well-being experience by the agent as a result of this divergence is also a cost of the relation of the agency, and this last cost is treated as a "residual loss" (Jensen and Meckling, 1976). The authors then define the costs of agency as a sum of:

- Monitoring costs;
- Costs with incentive to the agent (bounding costs);
- Residual loss.
- However, for Baiman (1990, p. 342):

A relation of agency exists when one or more individuals, i.e. principals, contract others, i.e. agents, to delegate the responsibility to them. The rights and responsibilities of the principals and agents are specified under a mutual agreement in a job relation. Under the job, relation terms are included: arrangement compensation, information systems, duties distribution, and distribution of property rights.

In all the models of agency, it is assumed that the individuals can only be motivated by self-interest. The problem of agency emerge if the cooperative behaviour that maximize the group's wellbeing is

not consistent with the self-interest of each individual. This happens if the job relation are such that, given that, everyone is acting in cooperation, on or more individuals could take advantage to themselves. Nonetheless, if it is expected on or more individuals that deviate from their cooperative behaviour, others could find their best interest to deviate, i.e. free rider - when one or more economic agents end up using a determined benefit without an equal contribution. In the end, the result is that the group suffers a loss in efficiency and all individuals are potentially free to become pioneers (Baiman, 1990).

This is another aspect that the performance if a company can be affected. If each one, principal or agent, acts according to their self-interest, the company can have a negative impact in its performance due to its behaviour.

According to Baiman (1990), so that there are an softening of the agency efficiency problems, it should be made to understand the determinant facts and the causes of loss of efficiency create by the divergence between the cooperative behaviour and the self-interested and analyze the implications of the difference of the different processes of agency control, e.g. budget systems, contracts of employment, monitoring systems, etc.

The author stills comments that, in the model principal-agent, it is assumed that individuals are rational and have limitless computational abilities. Moreover, they can anticipate and assess the probability of all possible contingencies in the future; if this occurs, the company's performance is also affected, in this case, positively or negatively. If, for example, a contingency is anticipated or solved, the impact over the performance will probably be positive; on the other hand, the impact can be negative.

If it is started from the premise of Baiman (1990) that the agent is averse to the job and to the risk, it can be claimed that, again, the performance of the organization can be affected, because the agent is the one that takes decisions in the companies, even if these were delegated to the principal.

Therefore, it is the asymmetry of information together with the aversion to the work and the risk of the agent that typically prohibits the cooperative solution to be achieved by an individual behaviour (Baiman, 1990).

Procedures of management accounting and processes within the company as monitoring systems, budget systems, variance investigation systems, cost allocation systems, and transfer pricing systems and their effects have been value to mitigate underlying agency problems of the company and the information that they produce must be incorporated in the job contract to perform a reduction of problem of the agency (Baiman, 1990).

By reducing the problems of agency, consequently, the performance will be affect, or still, the performance of the organization tends to be enhanced.

Other studies that discuss the theory of agency is the study of Lufty and Shields (2007). The authors discuss that the non-countable variables identified by the theory of agency affect the publication of accounting measure. Current profit as indicator of performance to the managers, as the strategy and as fulfillment of the product's life cycle are examples of this. The authors, as well as Baiman (1990), also cite the study of Holmstrom (1979) that claims that it must be considered the role of asymmetric information in a principal-agent relation that is subjected to moral hazard. There are also other studies (Baiman and Demski, 1980; Holmstrom, 1982; Antle and Smith, 1986; Banker and Datar, 1989; Lambert and Larcker, 1987) that tested results formally derivate of the model principal-agent in which the agency problem emerge due to the moral hazard by the agent.

Overall, the study of Feltham and Xie (1994) also discuss about the influence of the theory of agency on the assessment of business performance. The authors report that the countable numbers are frequently used in the assessment of the business performance, and that the business performance is an important ingredient to motivate the managers.

3. THE CONCEPT OF "PERFORMANCE"

Performance is understood as a measure of the result of the execution of the work, activity, enterprise, etc., that demand competence and efficiency. Performance is to accomplish (Pereira, 1993, p.133)

The term performance is inserted in the context with used and purposes (Lebas, 1995), and it is also defined from its correlation with efficiency and effectiveness (Marell, 2005).

For the FNPQ (2002, as cited in Nuintin, 2007), performance are the results of the indicators of processes and products that allow to assess and compare them with goals, patterns and other products and processes. These results express satisfaction, dissatisfaction, efficiency, and efficacy and can be published in financial or not financial terms.

The act of measurement brings together a set of activities, assumptions and techniques to quantify variables and attributes of interest of the object to be analyzed. As for the word performance, it carries with it the idea of something that has already been done, performed or exercised (Kiyari, 2001).

It is known that the indicators of performance are used as an auxiliary management tool to enhance decision-making. De Toni and Tochia (2002) corroborate with this by reporting that the indicators of performance are involved in the following activities:

- Planning, control, and coordination of activities;
- Control, evaluation, and personal involvement;
- Comparison of performance between the competitors and/or with organizations that are better at benchmarking.

A performance indicator system is a set of metrics and processes employed in its obtainment, it is used to quantify the efficiency and efficacy. The analysis of a system of indicators of performance can be done in three different levels: the performance indicator (or metric), the system of indicator, and the relation between the system of indicators and the environment (Marelli, 2005).

Still according to Juran (2002), according to the assessment, an indicator can be attribute or variable. The information contained in the indicator is descriptive in a review by attribute, and supported by the presence or absence of a condition. The variables are numerical indicators and quantification possible within a graduated scale.

A performance index is a numerical measure, as a percentage index, ratio, rate, or other comparison, that is monitored at intervals and compared to one or more criteria. The indices are the most common technique (Soares, 2006).

The indicators can be classified into two groups: qualitative and quantitative. Qualitative indicate a value judgment and can count on the help of a binary criterion, i.e., yes or no, accept or reject, and others. Additionally, the quantitative indicators reported an organizational process from the collection of representative numerical values of the process considered (Bagheri et. al, 2013).

According to Kardec, Flowers and Seixas (2002) the main function of the indicators is to indicate improvement points for organizations. Performance measures should have the purpose of indicating the weaknesses and analyze them to detect possible problems that are causing unwanted results. Thus, the indicators will point the solution for noncompliance.

4. PERFORMANCE EVALUATION

According to Pereira (1993, p. 125):

The act of evaluating, understood in a generic sense, is inherent to human nature itself; it is the exercise of analysis and judgment on any situation that requires an appreciation of facts, ideas, goals and a decision-making in order to achieve a desired situation.

To evaluate is to judge a situation that results in a decision-making. The evaluation serves as a tool to generate effective management, and includes the assignment of concepts before standards for measurement and performance (Santos, 2005).

The term evaluation refers to the act or effect of attributing value and that value can be understood in a qualitative sense (merit, importance) or a quantitative sense (measurement). The qualitative sense evaluation expresses the idea of judgment, judgment education or concept of attribution to certain attributes of an object, for example, for an economic performance: good, great, effective - as it holds certain qualities. In this sense, the evaluation requires standards, in information terms, as parameters to the realization of this trial. Therefore, it requires the measurement of performance expectations as well as their implementation (Pereira, 1993, p. 128).

According to Miranda and Silva (2002), three aspects should be analyzed in the performance evaluation process: Why measure? What to measure? How to measure?

According to Guerreiro (1989, p. 78):

measurements are needed not only to express goals and clarify targets about which decisions must be taken, but they are also required to monitor and evaluate the results of the activities involved in the process of achieving the targets.

Additionally, according to Pereira (1993, p. 128):

to measure a performance express the quantitative sense of the term evaluation: it refers to the quantification of attributes of an object, in order to express them numerically. The amount of inputs, the price of a product are examples of object attributes expressed numerically.

To Araújo (2001), the performance measurement aims to provide to the managers with insights so that they can know about what was done, how was it done, where it can be improved, and also when the system is under or out of control. The measurement system must be developed in order to capture and organize data, and communicate them clearly and quickly, allowing take steps to improve the overall performance.

Evaluating a performance means to judge it or give it a concept before pre-established expectations (Pereira, 2001, p. 197).

A performance evaluation system is a systematic way of evaluating inputs, outputs, efficiencies and efficiencies of the production process (Nuintin, 2007).

Performance evaluation expression may assume different meanings, depending on the meaning given to the term evaluation and on the performance context (Pereira, 2001, p. 197).

According to Pereira (1993), the corporative performance world may take various dimensions when related, for example, to the company in its total, and its areas, to the functions and positions held; operational, economic and financial aspects of the activities, to the activities planned and carried out. Reviews of these performances are required in a process of management as a requirement for control, which interacts with phases of planning and execution of activities. A management process requires evaluation of these performances, as a prerequisite to the exercise of control, which interacts with phases of planning and execution of activities.

The ultimate purpose of an evaluation model is to serve as an instrument to provide effective performance management. Performance evaluation is a concept, a process, a management tool in a business context. (Pereira, 2001).

The information used in a management control system can be financial or non-financial. Companies are increasingly complementing the internal financial measures with measures based on external financial data (such as the stock price), on non-financial internal data (such as the production time) and not external financial data (such as customer satisfaction). In addition, they are doing benchmark of financial and non-financial measures of other companies, considered "the best performance". To compete effectively in the global marketplace, companies need to have performance equal to or near "the best of the species" (Horngren et al., 2000).

Nuintin (2007) believes that the performance assessment allows the managers to know its real situation regarding to the established goals. It becomes possible to get to know the qualitative and quantitative deviations, supporting the managers on their decisions-making and in corrective actions, if necessary.

According to Catelli (1972, p. 6)

the situations which are faced are the high management of a company requirement for decision-making, where most of the time are economic and financial in origin, demanding concrete basis for evaluation of possible occurred deviations, to be able to issue its opinion and guide the executive, in order to engage as soon as possible in the recovery process situation previously considered as acceptable or optimal performance.

Miranda and Silva (2002) believe that one of the biggest challenges in implementing a performance assessment process is the definition of which indicators best meet the information needs of managers. There is lot of indicators for the assessment of business performance, since each has a utility due to the goal to be achieved. A study by Girioli (2010) found the use of 237 different variables to measure the companies' performance.

Therefore, performance is something that is closely linked to decision-making, and the head of the accounting function is to provide useful information to the decision-making, it can be said that performance is a crucial concept for accounting itself and, above all, for its users.

5. THE JOB SATISFACTION

To Rees (2010) job satisfaction "is an variable attitude that reflects how a person feels about work in general and its various aspects." That is, it can be said that job satisfaction is related to as how much people like their work and how it can affect their performance.

Locke (1969, as cited in Marqueze and Moreno, 2005, p. 70) "defines job satisfaction as the result of the assessment that the employee is on their work or the performance of their values through this activity, one positive emotion well-being.

Job satisfaction has been the subject of several studies (Heal, 1994; Locke, 1976; Cappelli, 2001; Zalewska, 1999a, 1999b). Any interest may derive from the fact that not being satisfied in the environment professional affects various aspects of the worker's life, as their physical, mental, attitudes and social behavior, personal and family, taking all this into the organizations.

According Klijn (1998), the systematic studies on job satisfaction were started in the 30s and since then many researchers have been interested in the subject.

There is still no consensus on concepts or on theories or theoretical models job satisfaction (Martinez and Paraguay, 2003, p. 59).

Job satisfaction is a complex and difficult phenomenon to define. Part of this difficulty stems that job satisfaction is a subjective state, which satisfaction, as a situation or an event, can vary from person to person, circumstance to circumstance, over time for the same person to be under the influence of internal and external forces to the immediate work environment (Fraser, 1983, as cited in Martinez and Paraguay, 2003, p. 60).

Frederick Herzberg developed the "Theory of Two Factors" in 1968. Two factors are crucial to have job satisfaction: hygiene factors and motivational factors.

The hygiene factors are related to the environment that the employee acts, determined by the organization, and part of the company culture, i.e. out of the control of the employees, of responsibility of the company and their respective management itself. These factors are necessary to adjust employees to their environment, but are not decisive to generate motivation or long-term productivity. Factors that are related to the conditions surrounding the employee while working, encompassing the physical and environmental conditions of work, are salary and benefits, company policy, the type of supervision received, the environment of relations between management and employees and internal rules, existing opportunities, job stability and etc. (Herzberg, 1968).

On the other hand, the motivational factors are those which are related to the employee and not to the company. These are the tasks and duties related to the position itself, such as: professional growth, development and improvement of skills, responsibility of the position being held, and self-realization by fulfill the assigned tasks and the recognition of their work. The motivational factors can produce any lasting effect of satisfaction and an increase of productivity in levels of excellence. To Herzberg (1968), the term involves feelings of accomplishment, growth and professional recognition, manifested through the exercise of tasks and activities that offer challenging enough and meaning for the worker.

In short, the theory of two factor of Herzberg about the worker satisfaction states that the job satisfaction is a function of the content or challenging activities and job stimulants (motivational factors) and a dissatisfaction in an office is a function of the environment, supervision, colleagues and the general context of the position (hygienic factors).

Given the above different companies have believed that a good relationship with their employees can help to increase productivity, competitive advantage and entrepreneur growth; therefor, becoming an organization's strategy. Thus, it was used as the database the magazine *Você S/A* Special Edition Best to Work For, because the employees themselves that indicate the best companies.

6. MATERIALS AND METHODS

6.1. Database

The sample population of this research was selected from the annual of the magazine *Exame – Maiores e Melhores* 2014, related to the year 2013. From this, it was selected the 50 biggest companies of 2013 published by the magazine *Exame*, edition of July of 2014.

Posteriorly, using the SPSS version 22.0, shown on Table 1, it was classified the 50 biggest companies in two distinct groups:

- a) Companies that were published in the magazine *Você S/A-Exame* edition 2014 as the best to work for, summing up 6 companies in the total;
- b) Companies that were not published in the same publication, summing up 44 companies.

Table1. Summary of the Study Processing

Variables	Group	Validated cases		Lost cases		Total	
		N	Percentage	N	Percentage	N	Percentage
GROWTH ON SALES	INDICATED	5	83,33%	1	16,67%	6	100,00%
	NOT INDICATED	32	72,73%	12	27,27%	44	100,00%
ADJUSTED NET PROFIT	INDICATED	5	83,33%	1	16,67%	6	100,00%
	NOT INDICATED	32	72,73%	12	27,27%	44	100,00%
RETURN ON EQUITY	INDICATED	5	83,33%	1	16,67%	6	100,00%
	NOT INDICATED	30	68,18%	14	31,82%	44	100,00%
WEALTH CREATED	INDICATED	4	66,67%	2	33,33%	6	100,00%
	NOT INDICATED	22	50,00%	22	50,00%	44	100,00%
GENERAL LIQUIDITY	INDICATED	5	83,33%	1	16,67%	6	100,00%
	NOT INDICATED	32	72,73%	12	27,27%	44	100,00%

Source: Elaborated by the authors

6.2. Variables Treatment

The statistical treatment of the variables was performed through the statistical software SPSS version 22.0, being used for analysis purposes, just for the observations that had all the data validated.

Although there were 50 companies in the list, it was considered for these analyses, just 4 companies for the group 1 (Indicated) and 22 for the group 2 (Not Indicated).

It was defined for this study the following variables: growth percentage of the net sales, adjusted net profit, return on equity, wealth created (added value), and general liquidity.

- a) Growth in the net sales – it means that the growth of the sales was obtained through the company in relation to its previous period, i.e. how much the sales of the company grew from 2013 compared to 2012;
- b) Adjusted net profit – it represents the net profit of the financial years, independently of its retentions or distributions, adjusting the interests over the company’s capital when these were being considered as costs;
- c) Return on equity– it means that the equity capital of the company yielded for the stakeholders, i.e. the amount of remuneration over the companies’ capital itself.
- d) Wealth created – it shows how much the company contributed for the formation of the country’s Gross Domestic Product (GDP). It represents the employee’s efforts for the company in the creating of wealth.
- e) General liquidity – it measures the financial wealth of the company on long terms.
- f) The variables were measured through the following manner:
- g) Growth: sales of the current period/sales of the last period;
- h) Adjusted net profit: adjusted net profit/sales of the current period;
- i) Return on equity: net profit/net equity;
- j) Wealth created: added value/sales of the current period;
- k) General Liquidity: current assets + long-term receivables/current liability + long-term liabilities

With this in mind, it can be confirmed that the current article seeks to test the existence of statistical evidences, in the significance level of 5%, that the performance of the Indicated companies, considering growth of sales, adjusted net profit, return on equity, wealth created and general liquidity, was superior comparing with the Not Indicated companies.

7. RESULTS AND DISCUSSION ACCORDING TO THE THEORY

Firstly, it was necessary to verify the sample distribution of the variables. To verify the variables behaviour it was performed the Kolmogorov-Smirnov Z nonparametric test, as it can be observed on Table 2.

Table2. Kolmogorov-Smirnov – A samples

	Null Hypotheses	Test	Significance
1	The distribution of GROWTH is normal with the average of 11.341 and standard deviation of 18.92	Kolmogorov-Smirnov Test of one sample	.002 ¹
2	The distribution of RETURN ON EQUITY is normal with the average of 9.870 and standard deviation of 55.15.	Kolmogorov-Smirnov Test of one sample	.000 ¹
3	The distribution of ADJUSTED NET is normal with the average of 5.345 and standard deviation of 6.56.	Kolmogorov-Smirnov Test of one sample	.006 ¹
4	The distribution of RG/SALES is normal with the average of 37.503 and standard deviation of 21.34.	Kolmogorov-Smirnov Test of one sample	.200 ^{1,2}
5	The distribution of GENERAL LIQUIDITY is normal with the average of 87.000 and standard deviation of 47.47.	Kolmogorov-Smirnov Test of one sample	.200 ^{1,2}

There are asymptotic significance. The level of significance is .05.

¹ Corrected Lilliefors

²This is the inferior limit of the true significance.

Source: SPSS22.0 output

H₀: All the variables show normal distribution.

H₁: Not all the variables shown normal distribution.

As it can be observed in Table 2 it was verified that the variables, Growth, ROE, and LL/SALES did not show statistical evidences to confirm that the distributions are normal, considering that the p-value is less than the alpha, stablished as 0.01. Thus, there are no statistical evidences to accept H₀.

Followed by that, it was performed the Mann-Witney nonparametric test (Table 3 and 4) aiming to verify if two independent samples (Indicated and Not Indicated companies) came from equal mean population, to the significance level of 5%. Consider group 0 as the Not Indicated companies and group 1 as Indicated companies.

Table3. Mann-Whitney test

Classifications	Group	N	Average Points	Sum up of the Classifications
GROWTH ON SALES	0	22	12,91	284,00
	1	4	16,75	67,00
	Total	26		
RETURN ON EQUITY	0	22	13,55	298,00
	1	4	13,25	53,00
	Total	26		
ADJUSTED NET PROFIT/SALES	0	22	12,95	285,00
	1	4	16,50	66,00
	Total	26		
WEALTH CREATED/SALES	0	22	13,55	298,00
	1	4	13,25	53,00
	Total	26		
GENERAL LIQUIDITY	0	22	13,11	288,50
	1	4	15,63	62,50
	Total	26		

Source: SPSS 22.0 output

Table 3 shows the mean differences between group 1 and 0, based on the established variables in this study. It can be noticed that the variable Growth presented the bigger difference among the means.

Table4. *Statistical tests*

Statistical tests ^a	GROWTH ON SALES	RETURN ON EQUITY	ADJUSTED NET PROFIT/SALES	WEALTH CREATED/ SALES	GENERAL LIQUIDITY
U of Mann-Whitney	31,000	43,000	32,000	43,000	35,500
Wilcoxon W	284,000	53,000	285,000	53,000	288,500
Z	-,924	-,071	-,853	-,071	-,604
Significant Significance (2 tales)	,355	,943	,394	,943	,546
Exact Significance [2*(Significance of 1 tale)]	,389 ^b	,973 ^b	,429 ^b	,973 ^b	,560 ^b

a. Variable Cluster: GROUP

b. Not corrected for connections

Source: SPSS 22.0 output

The following hypotheses were established for analyses purposes:

H₀: The means between the groups are equal.

H₁: The means between the groups are not equal.

Considering the significance level previously established, it appears that all the variables present statistical evidence that their means are equal, because the p-value is higher than alpha equal to 0.05. Thus, the null hypotheses (H₀) can not be rejected; therefore, accepting the equality factor between the mean of both populations

By the end, The Cluster Analysis was used, and according to Pohlmann (2007, p. 325-326):

It is a technique of multivariate analysis, which its primary purpose is to cluster objects, based on their characteristics. [...] The clustering is done based on its similarities or distances.

It was applied the non-hierarchical clustering method being defined a priori two clusters. The "Ward's Method", clustering algorithm, was used. The reason why this method was chosen was:

This method is chosen to minimize the internal differences of groups and to avoid problems with the "chaining" of the observations found in the individual connection method (Hair Junior et al., 2010).

As there are many distance existing measures, it was decided to use the Euclidean Distance Squared, to be recommended for the application of Ward's clustering method (Hair Junior et al., 2010). As shown on Table 5, it can be verified that in the cluster 1 was clustered twenty-five companies and in the cluster 2 only one company.

It can be observed by the results on (Table 5), that according to the differences found between the analyzes groups, it was not possible to split in a distinct cluster the Indicated and Not Indicated companies.

Table5. *Cluster's Association*

Case	
1:Petrobras	1
2: Distributor BR	1
3:Vale	1
4: Products Ipiranga	1
5:Raízen Fuel	1
6:BRF	1
7:Cargill	1
8:Brasken	1
9:Telefônica	1
10:Retail Via	1
11:GPA	1
12:JBS	1
13:Samsung	1
14:E.C.T	1
15:ArcelorMittal Brasil	1
16:CSN	1
17:CRBS	1
18:Usiminas	1
19:Sabesp	1

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20:Embraer	1
21:Gerdau AçosLongos	1
22:Fuel Ale	1
23:Construtora Odebrecht	1
24:Distribution Ceming	1
25:AES Eletropaulo	1
26:Gol	2

Source: SPSS 22.0 output

8. CONCLUSION

The current study seek to verify through statistical analyses that there are significant differences in the performance of the Indicated companies when compared to the Not Indicated ones, among the 50 biggest companies according to the publication on magazine Exame and Você S/A of the Publisher Abril for the year of 2013. A limitation of this study was that it was not possible to compare the performance of other companies and publications that were not included as the 50 biggest companies published in the magazine Exame – Maiores e Melhores, of the edition July/2014. This could be discussed and research for future studies.

Based on the performed tests, it was not proven that the companies' performance as the best to work for was superior to the Not Indicated ones. This might be due to the fact that it was only compared the 50 biggest companies, leaving a suggestion for future studies to use the complete database that has information of the 500 biggest companies and 155 best companies to work for.

The results goes against Herzberg's studies (1968), which found that motivational factors produce an increase in the productivity and excellence above average levels.

However, in the clusters analyses, it was found that the mean differences between the groups were not enough to discriminate them, being set companies of both groups in the same cluster. In addition, it was found that 96,15% of the companies were clustered in cluster 1, both from the Indicated and Not Indicated companies.

By analyzing the results, it can be affirmed that the companies listed as the best to work for did not present, considering the variables established in the study, superior averages in relation to the other companies.

As a suggestion for future studies, it can be increased the period of investigation, aiming to verify the behaviour of the variables through time and to investigate the variables in a segregate manner by sector, corporate control, and geographical region as a way to get to know the possible differences among themselves.

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