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Revista Eletrônica da FATEC TATUAPÉ - Vitor Civita

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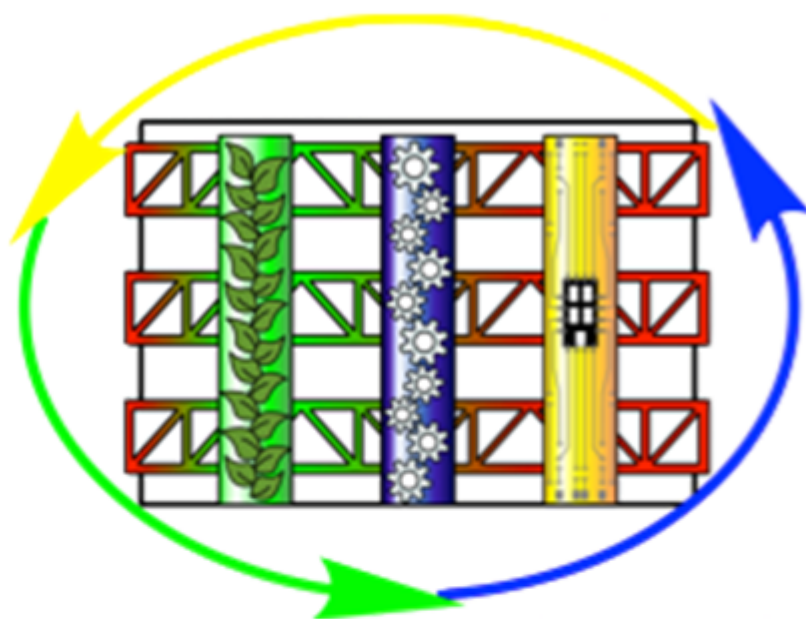
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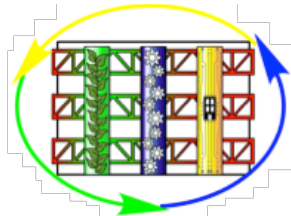
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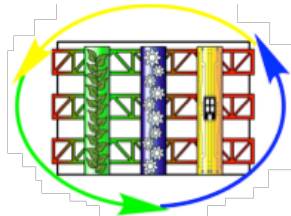
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APRESENTAÇÃO

A Revista *In* Sustentabilidade, Inovação & Empreendedorismo Tecnológico é uma publicação semestral eletrônica da FATEC TATUAPÉ – Victor Civita que é composta por três seções básicas: a primeira tem as apresentações editoriais com resenhas e opiniões; a segunda é destinada a artigos inéditos e com o rigor e fundamentações teórico-científicas e finalmente a terceira seção é destinada a republicações de artigos, estudos e informações gerais.

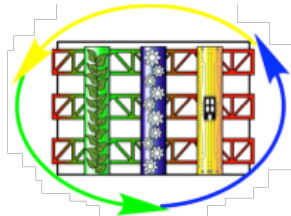
Para suportar as condições qualitativas a Revista conta com a contribuição de núcleos de conteúdos de colaboração regional, nacional e mundial.

Os núcleos de conteúdos são compostos por docentes convidados e que atuem em instituições parceiras e/ou colaboradoras, profissionais de projeção nas áreas e campos de conhecimentos afins, docentes e pessoas cujos repertórios colaborem em pareceres e avaliações de conteúdos publicados e de artigos submetidos. Os núcleos de conteúdos são responsáveis para a qualidade e reconhecimento da publicação e além de comporem um núcleo maior de integração, é responsável para geração do reconhecimento das pesquisas e ações pela publicação e base para a criação de grupos de pesquisas, estudos interdisciplinares e grupos de empreendedorismo tecnológico, ou mesmo, outras frentes de atuações que poderão ser geradas.

Para as avaliações dos conteúdos das seções conta-se com a colaboração de docentes convidados como coordenadores de conteúdos a revista e do Conselho Editorial. Para a avaliação e pareceres dos artigos da segunda seção conta-se com a participação dos componentes dos núcleos de conteúdos, dos coordenadores de conteúdos, membros do Conselho editorial e convidados de notório saber, atendendo a avaliação cega dupla, “doubled blind review”.

As submissões dos artigos científicos ficam vinculadas ao objetivo de difusão e integração de conhecimento e informações, com temáticas no atendimento do título da revista, bem como, seguem uma formatação disponibilizada ao final da revista.

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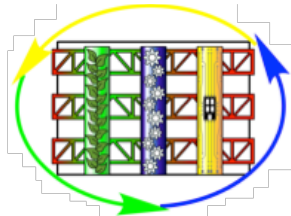
REVISÃO DE FORMATAÇÕES

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A Revista eletrônica **InSIET** – Revista *In* Sustentabilidade, Inovação & Empreendedorismo Tecnológico é mais um produto da Fatec Tatuapé e traz para os seus leitores uma contribuição sobre a formação tecnológica, bem como acerca dos caminhos trilhados por atores que compartilham saberes, sonhos e realidades vividas em unidades das Faculdades de Tecnologia do Estado de São Paulo – Fatec's.

Trata-se de publicação semestral cuja missão é disseminar pesquisas realizadas na área da infraestrutura, atendo-se às suas especificidades, com enfoque voltado para a melhoria das condições das comunidades envolvidas localmente – razão pela qual se destacarão os estudos que possam intervir na formação profissional, em que Homem e Ciência despontam veementemente como protagonistas.

Ao longo de suas edições, está Revista privilegia a divulgação de pesquisas realizadas por professores e estudantes, incluindo-se aí os grupos de alunos e respectivos orientadores, a outros formatos plurais de publicação, como, por exemplo, os Trabalhos de Conclusão de Curso, as Monografias produzidas na Especialização, as Dissertações de Mestrado e as Teses de Doutorado, uma vez transformados em artigos científicos.

Nesse contexto, a Revista eletrônica **InSIET** apresenta artigos que prestigiam a formação do tecnólogo em suas áreas específicas, conforme a visão de profissionais que atuam em setores distintos, mas que compartilham conhecimentos vividos e experimentados nos meios acadêmicos e também nos ambientes empresariais.

Esperamos, com a divulgação desses artigos, contribuir reiterativamente para os avanços e aperfeiçoamento do exercício e da atuação dos tecnólogos, e também com aqueles profissionais atentos e sensíveis às questões mais abrangentes e de maior destaque, como a sustentabilidade, as responsabilidades social e ambiental, entre outros temas que possam ser incluídos e discutidos nesse espaço de prática profissional.

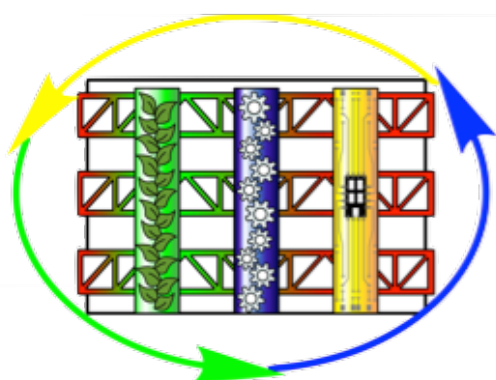
Prof.^a Dr.^a Ivanete Bellucci
Diretora da Fatec Victor Civita – Tatuapé

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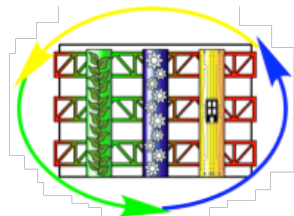
SEÇÃO

Editorial

Editoras: Dra. Sasquia Hizuru Obata e Dra. Ivanete Bellucci Pires de Almeida/FATEC Tatuapé – Victor Civita

Artigos de Opiniões, Análises e Considerações

SÃO PAULO, V.2, n.2
agosto a dezembro de 2015



Collective construction - a walk

ALMEIDA, Ivanete Bellucci Pires de (1)

(1) PhD in Education from FE/UNICAMP, concentration area Teaching, Evaluation and Teacher Training. Currently director of the College of Technology Tatuapé - Victor Civita - São Paulo / SP. Teacher and supervisor of the Graduate Program in Professional Education at Centro Universitário Tecnológico Paula Souza.

EDITORIAL

THE ONES THAT FIGHT

There are those who struggle for a day; and so they are very good;
 There are those who struggle for many days; and so they are very good;
 There are those struggling for years; and they are still better;
 But there are those who struggle for all their lives; these are the essential.

Bertolt Brecht

The theme of this issue of our journal InSIET goes through multiple paths. It is not an unknown theme nor detached from everyday reality. However, these texts are dedicated to our attentive reader committed with a population of researchers such as teachers and students interested in sharing knowledge. With this reflection and discussion in mind, we deal with the Technological Education and its different aspects. We have a landscape of ideas, courage and dedication. All these elements reinforce our teaching practices and further promote new writers and readers to venture to write. We count on a landscape of ideas, courage and dedication. All these elements reinforce our teaching practices and furthermore, promote new writers and readers to venture to write. In this issue we work with several texts as: (1) The legacy of the 2014 FIFA World Cup ; Urban Mobility in Five Brazilian Cities; (2) Organizational climate in educational institutions: The influence on productivity; (3) Participatory management and the role of main director in technical vocational education. We had other subjects to be also considered but for this moment, we highlight some specific ones.

In the article about the 2014 World Cup it is highlighted the legacy of mega events for the host cities, as these events can influence and modify the access and mobility of citizens in the neighbourhood of the stadium / arena Itaquerã, a huge arena as the event required, and that influenced other great buildings with the purpose of serving the local population. There were several works completed before the mega event and still being built at the moment.

In the article about Organizational Atmosphere, the subject has been treated to be of vital importance for organizations to show how the internal environment is and can become a great advantage against the competition by increasing the quality and productivity of internal and external staff. With these concerns and connections, the school-company promotes our theory of reflection and practice, highly valued in our Fatecs and Etecs considering how relevant is the approach of the working world and the academic environment and our concerns with the students.



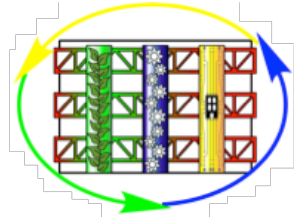
ALMEIDA, I. B. P.

Collective construction - a walk

This edition includes our decision to work with future issues also in the English version, what will provide us greater visibility and comfort for future publications. We also emphasize that the issues are not only related to our performance but also stress it. We share knowledge elaborated and confirmed in our learning environments. We highlight the links between Fatecs and Etecs, set of Technical Schools and Colleges of Technology, Centro Paula Souza, in São Paulo, which operates in the State of São Paulo, with excellent training in the public sector and that provides institutional support for this and some other publications.

Dear reader of our InSIET, this number includes articles related to our practices and techniques developed internally, but of course according to their own specificities. A magazine is not entirely restricted to models and techniques, but expands its borders to new ranges and also does not provide absolute reality parameter, but is open to new technologies and real teachers and students who need to move forward and point directions for the Brazilian education. Our objective is that our readers have access to issues that can develop and contribute to further investigations or may provoke and challenge new researches.

Enjoy reading!



**Why do companies have not yet considered universities as
stakeholders?**

OLIVEIRA, Valmir Martins De (1)

(1) Doctor in American Studies - Mention of International Studies. Institute for Advanced Studies (IDEA) from the University of Santiago, Chile (USACH). Master in Strategic Planning and Management of Hospitality by Universidade Anhembi Morumbi (UAM) - Brazil. MBA in Tourism from the University of São Paulo (USP). He graduated from the University of Buenos Aires (UBA) Training of Trainers to CSR (UNDP-UN). He graduated in Business Administration from the Universidade São Judas Tadeu USJT) - Brazil

EDITORIAL

In the present days, I think we reached a significant stage on understanding and progress of Corporate Social Responsibility (CSR). Large companies have participated in this process with significant contributions, such as the ISO26000 standard and other guidelines. If this phenomenon is part of several factors from the role of civil society to the internationalization of business, it is a discussion apart. The critical point is that we have a great challenge to restore this bridge between company and university.

From the perspective of CSR, reviewing the annual reports, the mention about University is usually an information that is not properly detailed, and simply slightly mentioned in any or virtually nonexistent social action.

Let's face a real example of contact between a university and one of the largest Brazilian's companies (cosmetics industry) internationally recognized for its policy of sustainability and CSR. "Because of the positive impact of our brand, related to sustainability management, academic demands have been increasingly growing, making it impossible for us to meet them with quality and dedication we would like," said the head of the Company.

I understand that if the company has a recognized image and often awarded for CSR policies, it will lead to a reflection for a strategic action: the evolution of the "positive impact" of the company should not lead to identify recognize and legitimate stakeholders?

The larger the enterprise prestige on the subject of CSR, the greater the demands for information from the various actors in society. In other words, came the famous stakeholders will come! I think you need not be an expert in communication or corporate reputation to reach to this conclusion.

Another situation: it seems that the CSR report has become the "lifeline" for some companies, by answering any kind of question or comment on their activities, especially for stakeholders "not legitimate". "Any question, look at the report." Thus the reports are presented as an end, when in my opinion, they should be the means.

In addition, the company has an essential role in the mission of the university, which in turn, is the one that should provide the necessary employability and entrepreneurship education for students. To reach this purpose, it is essential to establish links with the academic environment. In the future the students will be collaborating to develop business and making decisions that involve and value the different actors in society.

Applied research projects that evaluate the business environment definitely need a custom link with the company, with the aim of generating studies that would allow a better understanding of the achievements and business challenges. Today, it is a path for effective socio-economic development. In the methodologies for Case Study, we see the real importance of company-university approach.

Universities declared as stakeholders are part of a dynamic policy of CSR that is addressed to new social challenges.

The relationship with academic sector, should be considered essential for the exchange of experiences and to multiply the best business practices. In fact, these elements are the ones that are characteristics of a legitimate stakeholder.

VALMIR MARTINS DE OLIVEIRA



Doctor in American Studies - Mention of International Studies. Institute for Advanced Studies (IDEA) from the University of Santiago, Chile (USACH).

Master in Strategic Planning and Management of Hospitality by Universidade Anhembi Morumbi (UAM) - Brazil. MBA in Tourism from the University of São Paulo (USP). He graduated from the University of Buenos Aires (UBA) Training of Trainers to CSR (UNDP-UN).

He graduated in Business Administration from the Universidade São Judas Tadeu USJT) - Brazil.



OLIVEIRA; V. M.

Why do companies have not yet considered universities as stakeholders?

- Wide experience in business consulting activities
- 15 years experience as a university professor in the areas of Business (Postgraduate and Undergraduate)
- Research on CSR, Sustainable Development and Business Management from the perspective of Corporate Strategy and International Relationships and international NSAs
- Organization of academic events and participation in scientific committees
- Planning and implementation of information projects, management and training for business, especially SMEs

Member of the Chilean Mirror Committee of ISO 26000 Social Responsibility in 2010 and currently teaches at the Universidad Mayor (Santiago de Chile).

Co-Founder of the International Symposium on Social Responsibility in Organizations (SIRSO), a biannual event that brings together international researchers, especially in Latin America.

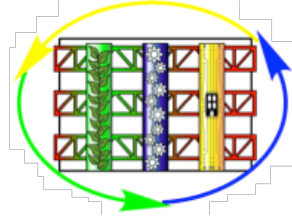
1st edition 2010 - Santiago University of Santiago, Chile)

2nd edition 2012 - Rio de Janeiro (Universidade Federal Fluminense)

3rd edition 2014 - Lima (Catholic University of Los Angeles de Chimbote)

4th edition 2016 - Colombia University of St. Thomas)

Among the books, result of management research the following is highlighted, in which is he co-author "Organizational Social Responsibility: Models, experiences and Inovações", 2015. As co-compiler of books SIRSO results: "Social Responsibility of Organizations. Perspectives of New Institutional Frameworks in Latin America", 2011 and "Social Responsibility of Organizations. Panorama of the Academic Agenda of Latin America", 2013; and "Social Responsibility of Organizations RSO: Progress and Proposals in Latin America" launched in 2015.



Self-reinvent and Self-destruct

Pandolfo, Alexandre (1)

(1) Civil Engineer from the Polytechnic School of USP with specialization in Sales and Marketing from ESPM and SSJ. 26 years of experience in corporate business areas like ULMA, MILLS, and LAFARGEHOLCIM. Speaker and coach, he is currently responsible for the areas of Marketing and Sales at HOCHTIEF Brazil.

EDITORIAL

When I received an invitation to work on an avenue called Paulo de Frontin - that the locals speak "Frontein" - I was intrigued by the character and search in a search engine. I knew the story of this innovative.

There was no enough water in Rio in 1888. The rapidly growing metropolis suffered the effects of drought aggravated by the hard summer. Emperor Dom Pedro II ordered the holding of a public tender for choosing a responsible office for plumbing works that would solve this problem.

The winning project of the young 29 year old engineer with the Engineer Belford Roxo and students of the Polytechnic of Rio de Janeiro, promised a solution in 6 days instead of 6 months - besides having a much lower cost than competitors.

Under threats and pressures, the project was carried out within promised through the settlement of a pipeline 4,000 km to the edge of the line of Railroad Rio D'Ouro. Maybe some of you remember this story, described under dramatic touches by Raul Pompeia. Lack of manpower, torrential rains fell in the days of work and communication problems succeeded. Delivered services, the apolitical hero was carried in triumph through the streets of Rio de Janeiro, in only minor parties than the abolition of slavery.

The "Water Episode in six days", and other achievements of Frontin, such as the Central Avenue (Rio Branco), Niemeyer and Delfim Moreira, transformed him as the Patron of National Engineering.

"Storytelling" aside, Paul innovated. He delivered more for less. And before.

It might be easier to imagine that innovation can be closer to companies or high-tech institutions, on models that can often be called disruptive.

A half-truth. My provocations go the other direction. The Internet and the digital world are increasingly accessible. collaborative platforms, IoT- Internet of the things, Virtual Reality, Cloud Computing, BIM, Big Data - are more palatable words within organizations.

Have you ever thought how all this can impact on your business and your life? Have you tried to understand that for every digital footprint left by your public client, there is a meaning or track of something for you?

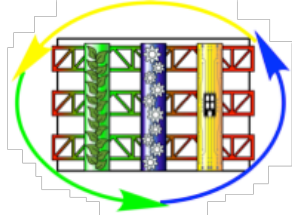


PANDOLFO, A.

Self-reinvent and Self-destruct

More than ever, reinventing itself and destroy itself, to rebuild, it is key survival in a hostile world and adverse weather.

Did you innovate today?



Being and Sustaining

SANDLER, Sérgio (1)

(1) Founder partner of Sandler Environment Architecture Urbanism company since 2000, a company devoted to territorial plan activities, municipal master plans, environmental master plans; projects of urbanization, coordination and management of infrastructure projects; architecture projects. Degree in Architecture and Urban Planning at the Faculty of Architecture and Urban Planning of Mackenzie University (1980). Professor of Urbanism and Vertical Studio of the School Association City - Architecture and Urbanism. Professor of Architecture in the Course of Urbanism and Urban Planning, of the School of Plastic Arts of the Fundação Armando Alvares Penteado.

EDITORIAL

" Sustainable development is one that meets
the needs of the present without
compromising the ability of future
generations to meet their own needs."
(Brundtland, 1988, p. 46)

From the publication of the Brundtland Report entitled "Our Common Future" by the World Commission on Environment and Development in 1988, the idea of sustainability has entered our daily lives irreversibly.

In the last twenty years of the century XX, it became apparent the incompatibility between the consumption and production levels applied and the capacity of supplying inputs based on massively exploited natural resources massively exploited.

Even though, almost three decades after its announcement, the idea of sustainability has not been established as a development premise, but rather the opposite: the more recurrent its use, the larger and damaging are the sad facts that justifies it.

In a kind of mixed signals play, the more we talk about sustainable development or sustainability, the more distant, unlikely and infeasible the idea seems. There is a talking on sustainability caused by their opposites: Mariana, Cantareira, Fukushima, Bhopal, Three Mile Island, Chernobyl.

Islands of heat, droughts or extreme floods, population in risky areas, under housing, poor health, lack of sanitation, education with no quality, air pollution, noise, poverty, misery: the reference to sustainability becomes mandatory where it is not present.

We continue to dispense brutal treatment to the physical environment; to use the natural resources in a thoughtless, destructive and overwhelming manner; to perpetuate the imbalance of opportunities and social benefits; to promote unfair sharing of socially produced wealth. All in the name of a certain type of development, purely economic, sparsely distributional, terribly uneven, which affects more and more the planet.

The persistence of this type of development reveals a firmly established behavior, a cultural paradigm of domination and submission of nature as old as man's own consciousness of his condition.

In such circumstances, it seems possible to assign no more than a space in the field of ideas to reflect on the idea of sustainability.

Is it too little?

Perhaps not, if we understand that it means to spread a different idea of development and progress on the basis of a new practice, a real new socioeconomic development culture that considers the preservation and rational use of natural heritage, sharing of the benefits and the fair distribution of wealth.

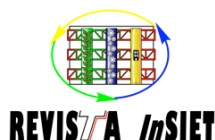
This is what emerged from the United Nations Conference on Environment and Development held in Stockholm (1972) and Rio de Janeiro (Rio-92 in 1992 and Rio + 20 in 2012). Such meetings and more extensive theoretical work showed that sustainability can be the expression of a desire for something we envision as fair, balanced, harmonious, perhaps a civilizational content in a new key.

It is, above all, an ethical issue¹, which as such should govern socio-economic relations between production and environment, between man and nature, between them and everything and everyone.

Thus, sustainability is a formative idea of a mentality based on the concept of the common good shared, in which everyone is aware of his role, the responsibility for his actions in face to the others, his attitude in relation to his community and the fundamental values of common life in society. In other words: politics².

¹Ethics: A set of moral values and principles that guide human conduct in society. Ethics is so that there is a balance and good social functioning, allowing anyone harmed

² Politics comes from the Greek Politika, derivation of polis that means what is public. It is the art of negotiation to reconcile interests, mediate differences, it is the coexistence field and relationship of all with all, it is the possibility of life in society, republican and therefore sustainable. Not to be confused with the defense of particular interest, the privilege and the benefit of the few at the expense of many. This is not politics and it is not sustainable.



SANDLER, S.

Being and Sustaining

We can then recognize the four dimensions of sustainability: environmental (physical environment, nature); economic (development); social (reduction of poverty, equal opportunities) and policy (balanced sharing of power).

Kurt (2006), proposes sustainability as "a reformulation of welfare model measure in quantitatively terms of resources leading to a version of progress based on qualitative, social and environmentally sustainable criteria." Recording: considering well-being measured, dimensioned, materially sustainable; in a version of progress, i.e., in an alternative and differentiated form of progress to include the qualitative, ecological and social dimensions.

All this suggests sustainability not as simple rhetoric based on the ubiquitous opposition to disaster, or as idyllic promise of paradise lost or renewed vow of promised land.

Sustainability can and must involve a active worldview shaped by the active position towards life and its facts in a permanent process of awareness, to recognize that our actions today inexorably determine the fruits we will harvest - or not - tomorrow.

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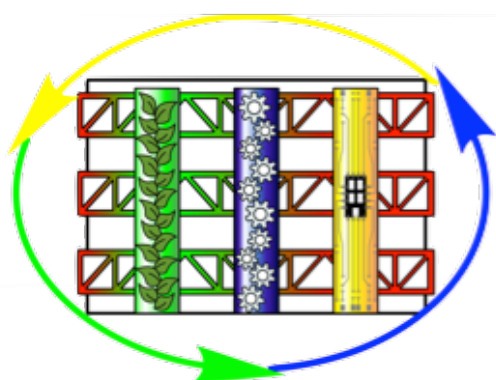
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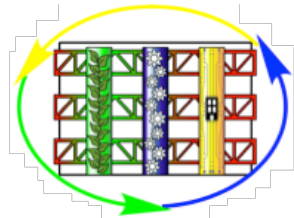
SEÇÃO

***Artigos
Técnicos-Científicos***

Editoras: Dra. Sasquia Hizuru Obata e Dra. Ivanete Bellucci Pires de Almeida/FATEC Tatuapé – Victor Civita

Artigos Científicos Avaliados Por “*Doubled Blind Review*”

SÃO PAULO, V.2, n.2
agosto a dezembro de 2015



The legacy of the FIFA World Cup 2014: Urban Mobility in Five Brazilian Cities.

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RESUMO:

Os mega-eventos ganharam popularidade nos últimos tempos pelos legados às cidades-sede. Decorrido um ano e meio do evento, este artigo visa identificar os legados em mobilidade urbana em cinco cidades-sede de jogos da Copa do Mundo da FIFA 2014, ocorrida no Brasil. A principal cidade pesquisada foi São Paulo, cuja construção do Estádio Arena Corinthians dista poucos quilômetros da FATEC-Tatuapé, unidade de ensino onde foi feita esta investigação. Privilegiou-se o tema da mobilidade urbana porque as autoras estão inseridas no curso de Tecnologia em Transportes Terrestres. A metodologia utilizada foi revisão bibliográfica; verificação de dados relacionados ao acesso aos estádios construídos ou reformados para a Copa; visita ao entorno da Arena Corinthians; coleta de depoimentos com usuários do sistema de mobilidade construído para a Copa 2014; pesquisa em jornais e revistas sobre os projetos e obras realizadas em mobilidade urbana a partir do anúncio da Copa 2014 no Brasil até a data de realização desta pesquisa. Os resultados obtidos mostraram que muitas das propostas da Matriz de Responsabilidade não chegaram a ser executadas. Mesmo assim, houve diversas obras concluídas antes do mega-evento, havendo tantas outras terminadas após o evento, e ainda sendo construídas no momento.

Palavras-Chaves: mobilidade urbana, revisão bibliográfica, Brasil.

ABSTRACT

The mega events became very popular recently because of the legacies brought to the host cities. After one and a half year of the event, this article focus on the urban mobility legacies in five host cities of 2014 FIFA World Cup, held in Brazil. São Paulo is the city where researches have been more intense, the local where the Corinthians Arena was built, located a few kilometers from FATEC-Tatuapé, the institution in which this research was carried out. The urban mobility theme was focused because the authors participate of the Ground Transport Technology Course. The methodology that was used was the literature review; study of data related to the access to the stadiums built or refurbished for the Cup; visit in the surroundings of the Corinthians Arena; interviews with users of the mobility system built for the 2014 Cup; research in journals and magazines about urban mobility projects and others carried out since the announcement of the World Cup in Brazil until the time this research was made. The results show that many of the goals proposed by the Responsibilities Array have not been reached. Even so, many buildings have been concluded before the mega event, and there are so many others that were completed after the event, and some still being built by this time.

Key-words: urban mobility, literature review, Brazil.

1. Introdução

Mega sports events such as the FIFAs World Wide Cup and the Olympic Games normally brings expectations in relation to the legacy to the villages considered the headquarters of such events. In all moments of the event, since the choice of the country and the preparation of the spot to receive it and finally its eternity, there is some expectations that it will bring benefits to local population. Benefits are expected to overcome the moment of the event. Considering as example 2010 FIFAs World Cup in South Africa, Bransky (2013, page 568), it is announced that the road that links Johannesburg to Pretoria was updated “as well as the increase of the Johannesburg and Cape Town’s airports. A new station in Bloemfontein and a new airport in Durban have also been built”. The author mentions that BRT (Bus Rapid Transit) was implemented related to urban mobility which means improvement in trains and traffic.

Brazil hosted 2014 Worlds Cup and many expectations have been considered in the realization of this mega event. Based on other countries that had already been responsible for other World Cups, Brazil celebrated the beginning of the games with the hope of changes and improvements to the villages that were holding the soccer games (BERNASCONI, 2013).

One year after FIFA 2014 World Cups end, held in Brazil, we became curious about investigating which was effectively the legacy left by this mega-event to the villages that had been the headquarters during the games, related to urban mobility, key point defined as extraordinary when Brazil was released as the Worlds Cup host.

This article aims to make a research on 2014 FIFAs World Cup urban mobility legacy considering five host cities, mainly São Paulo, whose Estádio Arena Corinthians building in the East area of the city is 10 kms from FATEC – Tatuapé, the higher institution unit in which this research was held. The urban mobility theme was chosen due to the fact that the authors are directly associated to the Technology in Land Transports’ course.

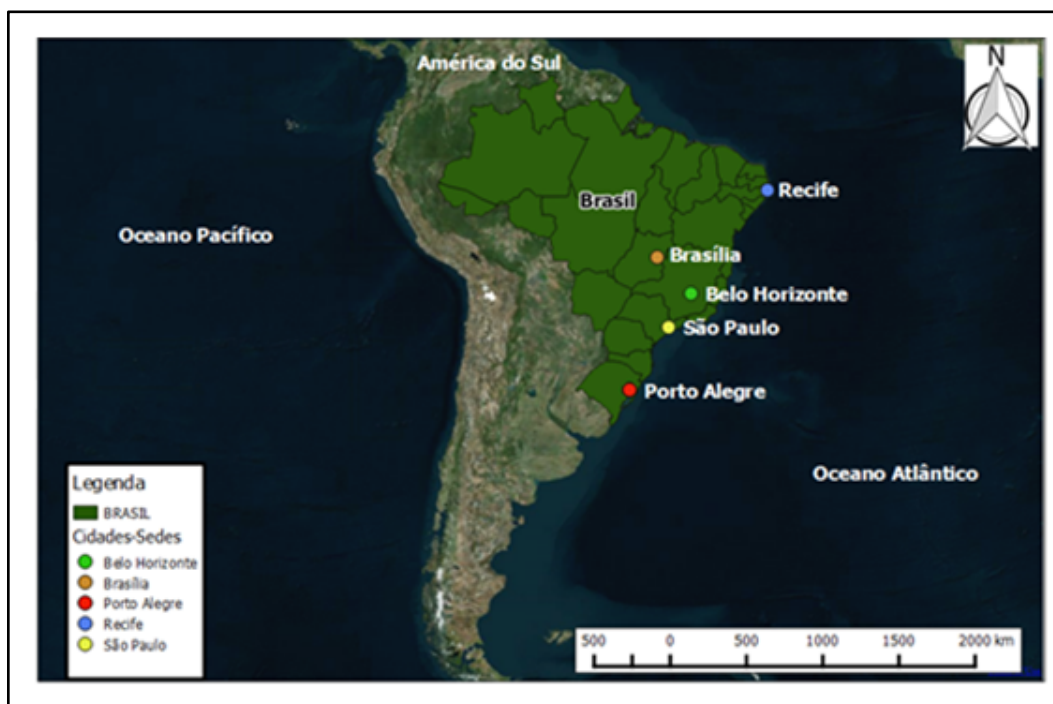
Specific targets of this investigation are, besides the diagnosis of what has been built, to compare results with what had been proposed in the Responsibility Array, which had been the financial sources, even if not mentioning expenses in details, as well as its functionality during the event and afterwards.

2. Methodology

First, it is important to mention that the research was made inside FATEC-Tatuapé Technology in the Land Transport’s Stage Program, between the months of September and November of 2015. During this period, a wide bibliographic review about sports mega-event legacy has been made, as well as a research about the projects related to transport construction and services accomplished to 2014 FIFA Worlds Cup in five host cities such as São Paulo, Belo Horizonte, Recife, Porto Alegre and Brazilia. It was also made an investigation of data associated to the access to the stadiums built or refurbished to the 2014 FIFA Worlds Cup; a visit to Corinthians Arena in São Paulo in order to generate documents related to the works made in urban mobility starting on 2014 FIFA Worlds Cup in Brazil until December of 2015 when this article was concluded.

The five host cities were chosen during the process of collecting information. The main intention was to include villages from all Brazilian regions. Thus, Porto Alegre was chosen in the South, Recife in the Northeast, the federal capital, Brazilia, in the Center-West and São Paulo in the Southeast. However, considering the number of works proposed to Belo Horizonte, it was decided to include another village of the Southeast, Belo Horizonte. On the other hand, the North Region was not included due to the lack of elements available to the investigation. The two villages chosen in the

Southeast region, Belo Horizonte and São Paulo, offered major content related to the urban mobility legacy. Map 1 shows host cities that have been researched.



MAP 1 – 2014 FIFA World Cup host cities locations

Source: Ana Maria Marques da Costa, 2015.

3. Theoretical Foundation

According to Da Costa and Miragaya (2008, page 36, mentioned by MARCELLINO, 2013, page 9), mega events are events of "short duration but, of long and sometimes non-stop preparation, always involving millions of participants". So, "the characteristics of a mega-event are related to the number of participant and to the process". (MARCELLINO, 2013, page 9). To Morgan, Summers (2008, page 84), "mega-events are the huge sports renewed competitions and as better example both Summer and Winter Olympic Games, Rugby Worlds Cup and Soccer Worlds Cup."

According to Marcellino (2013, page 10), "The legacy word is applied constantly like something that you can leave to benefit others (...). When examined, mega-events legacy, i.e., their results, the major tendency is to consider the benefits, their positive aspects." Therefore, when a country is chosen as the headquarter for a mega event such as the FIFA Worlds Cup, the great part of people approves the choice. The positive concept of legacy became stronger in Brazil with the Pan-american and Parapan-American games, in Rio in 2007 (Rodrigues, 2008). It seems to have a real union during these events, not depending on professions or social conditions.

However, there is also negative legacy, as mentioned by Bernasconi (2013). Some of the buildings may become "white elephants". This means that some of them may not be totally used after the end of the event.

Preuss (2008, apud MARCELLINO, 2013) also points about the understanding of positive or negative characteristics of the word legacy. Some of the host cities of the past, such as the ones during the Atlanta Olympic Games (USA – 1996) and the ones in Sidney Games (Australia -2000) were not as successful as Barcelona, and this will be fully discussed later on.

Worse results occurred in Montreal (Canada – 1976) and Athens (Greece-2004) whose “debts continued being paid even a long time after the end of the games”. (BERNASCONI, 2013, page 142). In Athens, almost all Olympic installations were not being used and the neighborhoods abandoned eight years after the end of the 2004 Olympic Games, besides loans assumed for the organization and execution of the games.

Marcellino (2013, page 11) mentions that legacy are public policies of financing and management due to mega sports events “and accomplished according to the macro development plan of the host city, its state and country”, assembling for its own benefit in many aspects that may vary from the regeneration of degraded urban areas to the inclusion of sports as practice for population. Mentioning the Mega Sports Management Events Legacies, held in Rio de Janeiro between May 1st and 4th, 2008, Rodrigues (2008, page 25) says that “there are other basic earnings such as the construction of values and habits, the Olympic education, the overcoming difficulties to the achievement of inclusion in sports and the construction of the village that we want not only for ourselves but for future generations”. These would be social legacies, considered all intangible and that should include the whole population of the country, even the one that did not have direct access to the games.

The same happens to the urban improvements, also considered as tangible legacies. All will benefit from them after the end of the event during day to day and not only in sport events or game days. Housing revitalization of public areas and transport are the focus of this article. “So, in order legacy becomes real, people should use not only what has been built but it is also taken into consideration that many people participated of the works manufacturing equipment and after this in its maintenance, what also means a legacy”. (RODRIGUES, 2008, page 24).

Urban revitalization, to Sánchez (2008, page 41) is a process of environment recovery that aims to transform urban degraded environment into “able to a new productive use, since sustainable”. Urban areas can be deteriorated due to social-economic or physical processes such as the rivers pollution or soil contamination.

The legacy of requalification of urban environment after mega events is expected mainly after the Barcelona Olympic Games (Spain), held in 1992. This village became a symbol in this sphere. Marcellino (2013, page 142) mentions that this seems to be related to the Olympic Park construction in a degraded area of the village, the port area. The docks have been substituted by beaches and the recovered area “transformed the Olympic village in one of the most disputed places to live in”, besides the improvement of tourism.

Mega events legacies in other cities of the world are mentioned in literature. Poyter (2008, page 127) mentions that the 1996 Olympic Games host city, Atlanta, focused on proving to the village its transformation into an “important business center – a place to important American and International companies”. Barcelona (2002) and Athens (2006) looked for a requalification like some European and International trade and tourism centers.

Similar to those villages, Beijing (China-2008) looked for “international recognition for rejoining recently the world economic system through the association with the World Trade Organization (WTO) and relatively recent good reputation as the Worlds manufacture workshop”. (POYTER, 2008, page 127). In this context Chinese government adopted environmental policies and the installation of infra structures devoted to housing and transport, i.e., Chinese government enlarged the scope of the installation of equipment related to sports. National Water Center’s fame, well known also as Water Cube, as well as some other mega structures built in the village, are remarkable olympic legacies left to Beijing.

Seoul, South Korea capital and 2002 FIFA Cup stage, together with Japan, was contemplated with new airlines what contributed to tourism expansion and with more than half a million of additional tourists, visiting the country during next decade”. (POYTER, 2008, page 128).

Japan had ten stadiums among the ones that were built or refurbished but, such as in Manaus or Cuiabá (located respectively in the Brazilian states of Amazon and Mato Grosso), many cities do not

have teams of first echelon that would be able to keep the place. They are not hosts for big championship. Thus, these stadiums continue to be maintained by government and became expensive and underused. On the other hand, airline tickets to Japan became more accessible after this mega event. Similar to Germany, Japan already had a good urban mobility so that the event did not have to contribute in this field. (G1, 2014).

This research focused on the FIFA 2014 World Cup urban mobility, as it has already been mentioned in the Introduction of this article. According the Public Transportation National Association (2003, page 14), "mobility is an attribute of people and economic agents at the moment they try to assure the displacement they need, taking in to consideration the dimensions of the urban space and the complexity of the activities they develop". The displacement people make to go to school, to work, to have fun, among other daily activities, constitute mobility. (MAGAGNIN; SILVA, 2008).

We understood that mobility is the capacity that people have to make displacements, what is influenced by accessibility, that "represents the work services offered by public transportation system". (ROSA, 2006, page 25). So, when a country hosts a mega event such as the FIFA Cup, the investment in the construction of transport structures, initially conceived for the displacement during the period of the games, becomes a legacy to the autochthonous population. This is an undeniable truth. Nevertheless, it is necessary to investigate until which point this logic has become reality in the 2014 FIFA Cup, in five host-cities in Brazil, and this is what we intend to show in this article.

4. Legacy in urban mobility

According to Marchesi (2014, page 31) "When you think about urban legacy from mega events, one of the key points, in any country of the world is the enlargement and modernization of the transport systems.(...) This has been main legacy left to Barcelona that hosted 1992 Olympic games and South during 2010 FIFA World Cup". These two locations passed through some changes in their infra structures, besides huge investments in their transport systems. To the author, "they not only met the necessary displacements but became real improvements to the population after the events came to the end". (MARCHESI, 2014, page 31).

In Germany, that hosted 2006 FIFA Worlds Cup, the dense road infra structure and of good quality received both inter and intra urban improvements. This may be the reason for which the investment had been low in improvement of roads, public transport and parking (BRANSKI, 2013). The author considers that considering the railroad transportation, the time to travel from one village to another was reduced and six stations have been updated, also pointing that all host cities are provided with platforms adequate to high-speed trains.

In South Africa, according mentioned in the Introduction, 2010 FIFA World Cup left the system of one single ticket as a legacy to urban mobility together with the BRT (Bus Rapid Transit), also observed in the host villages of Brazil's Cup, among other improvements (BRANSKI, 2013). It was not far different in Brazil, where the focus on urban mobility was highlighted and many projects based on improvement and new actions and technology. After the end of the Cup, some urban transport systems were introduced into the country such as the Monorail, the VLT (Light Rail) and BRT expansion to other villages besides Curitiba, where the system already exists since 1974.

As soon as the host cities have been defined (May, 2009) by FIFA and the Local Organizational Committee, the race to build Cups legacy started and many different sectors of society gathered to organize the event (BERNASCONI, 2013).

Federal Government applied a program to provide funds named PAC (Acceleration Growth Program) and in what concerns urban mobility, the Urban Mobility Pact Covenant. In June 2013, Federal Government established the criteria of this program aiming to reinforce the investments in the area, adopting partnership with some states and villages. "R\$ 143 billion became available to

requalify and install new public transportation systems enlarging capacity and promoting integration between different modes. From the total, R\$ 93 billion have been applied in the PAC 2 and R\$ 50 billion in the Urban Mobility Pact, according to the requests made by City Halls and State Governments''. (BRAZIL, 11/06/2014).

Despite the long period of preparation available (from 30 October 2007 to 12 June 2014, i.e. 2418 days) (BERNASCONI, 2013), the population watched appalled by the delay in execution of works. The media announced slow compliance with the established schedule and Responsibility Array was repeatedly revised and reformulated, as can be exemplified by the headlines of the series "The Cup as it is," published in the newspaper Folha de São Paulo, with calls like "the 30 days of the Cup, half of the goals was not met" or "Governments of the host villages blame projects and even rain delays" (A 30 DAYS 2014; GOVERNMENT, 2014).

Both media and public opinion, lobbied the government. There were demonstrations across the country in June 2013 with a very broad agenda, and between the claims was the cancellation of the event. Dissatisfaction was due to the high investment in the construction of stadiums and the slowness of the works of real interest of the population, including those linked to improving urban mobility. Still, the government has conveyed the acceleration of infrastructure investments in the country, as seen in section reported on the website of the Federal Government during the event: "With the World Cup, investments in ports, airports and urban mobility already foreseen for the 12 event host cities were accelerated and were ready in time to meet the demand of tourists and fans during the World Cup. The work relied on CAP 2 resources and had good execution, says Maurício Muniz, PAC Secretary at the Ministry of Planning. 'In the three areas in which the CAP has contributed work for the World Cup was of good performance, which is enabling this Cup to be held smoothly and properly'', he pointed.

In the area of urban mobility, the PAC 2 gave 300 km of works such as BRT, bus lanes and subway lines. An example is the construction of the first stretch of Bahia subway, which is taking fans to the Arena Fonte Nova. "(BRAZIL, 07/02/2014).

In September 2011, in the city of Belo Horizonte President Dilma Rousseff in survey works of the World Cup, announced investments for mobility projects in major Brazilian cities. This money came from the PAC Mobility Large Cities. There would be expansion of subways and construction of terminals for buses, among others that will be pointed out in item 5. However, in 2015 advances were small. According to the Ministry of Cities, responsible for portfolio investments in the program works, there would be the release of funds only after the preparation of reports that attest to perform the services as scheduled. However, municipal and state managers continue to complain about the lack of resources (FONSECA, 2015). It seems that while these issues are not solved progress will not be made on the projects and works cannot be concluded."

The following item focuses on works related to urban mobility in the five host cities, already mentioned above.

5. The proposals and the results

5.1 Belo Horizonte

The city of Belo Horizonte, established in 1897 and located in the state of Minas Gerais, was the first city in Brazil to be planned. The city currently has about 2.4 million inhabitants. The city's roads have wide avenues and tree-lined streets (BRAZIL, 2015).

For the realization of the World Cup 2014 event, the city prepared to host the games. It began with the Confederations Cup in 2013, with three matches and in 2014 during the FIFA World Cup six games took place in Belo Horizonte.

Belo Horizonte football stadium is known as "Mineirão". Its official name is Governor Magalhães Pinto Stadium. Due to the game schedule, some agreements were affirmed between the Federal Government, State of Minas Gerais Government and the Municipality of Belo Horizonte for the renovation of the stadium, with capacity for 64.5 million fans, with investments of R \$ 695 million and contract with partnership public-private (UVINHA, 2013).

As D'Agostino (2013), proposals focused on urban mobility works for Belo Horizonte World Cup were: Expansion of Traffic Control Center, Route 710, Boulevard Arruda, Antônio Carlos Avenue, Pedro I, BRT Cristiano Machado, Central BRT, Via 210, Corridors Pedro II and Complementary Works. According to a report of the Diário do Grande ABC (MOBILITY ..., 2010), the city of Belo Horizonte was the first awarded closing partnerships with the federal government with PAC resources for improvement of urban mobility. But despite this, all mobility projects to Belo Horizonte were not delivered within the deadline. Delivery of most of the works was extended for reasons of expropriations, design change and complexity. During the execution of works in the city of Belo Horizonte, the construction of the overpass access handle fell on Pedro I avenue, on July 3, 2014, leaving unfinished projects and leading to slow project completion (G1, 2014). According to the managers works would continue after the World Cup.

Among the mobility proposals for the World Cup, the BRT MOVE system circulating in the city of Belo Horizonte in exclusive lanes on the avenues Antônio Carlos, Pedro I and Cristiano Machado was concluded after the schedule. They are the only ones completed and are in operation in this city. The others are in progress (BRAZIL, 2015).

5.2 Brasília

The city of Brazilia is located in the Federal District, Midwest region of Brazil. It was created in 1960, designed to be the new Federal Capital of Brazil. It has about 2.6 million inhabitants (BRAZIL, 2014).

The federal capital of Brazil also hosted games during the World Cup in 2014 with seven matches. In the previous year during the Confederations Cup, there was only one match. For the realization of these games the Federal Government and the Federal District signed some partnerships. The National Stadium known as "Mane Garrincha" has undergone renovations and now has capacity for 71,000 supporters. Investments for renovation were R \$ 1.015 billion, with public contract. (UVINHA, 2013)

On the issue of mobility two projects have been proposed, the Light Rail Vehicle (LRV) that would connect the airport to the South Wing bus terminal and the expansion of the DF-047 EPAR (Park Road DF-047 Airport). The VLT project was halted by court injunction, requesting the cancellation of the contract and a new bid for suspected fraud in the bidding process. The project was redesigned and the new forecast completion was for 2018 (PROMISED ..., 2015).

The only work delivered within the period prescribed by the Federal Government and the Federal District, that is, before the World Cup, was the expansion of DF-047 EPAR (Park Road DF-047 Airport), which had two marginal lanes in each built sense and a tunnel through the roundabout Sarah Kubitschek. A cidade de Brasília localiza-se no Distrito Federal, região Centro-Oeste do Brasil. Foi criada em 1960, projetada para ser a nova Capital Federal do Brasil. Tem cerca de 2,6 milhões de habitantes (BRASIL, 2014).

5.3 Porto Alegre

The city of Porto Alegre belongs to the state of Rio Grande do Sul, in the Southern region of Brazil. The foundation of the city took place in 1772. It currently has about 1.4 million inhabitants (BRAZIL, 2014).

Some partnerships were created for the Games with the federal government, Porto Alegre City Hall and the Sport Club Internacional, the city's football club, in order to receive the Confederations Cup in 2013 and the World Cup in 2014. The football matches were held at the Estádio José Pinheiro Borda, known as "River's Edge." The stadium was renovated through a private contract, staying with capacity for 60,800 people. It was used in the 2013 Confederations Cup but hosted four matches of the FIFA 2014 World Cup.

The initial plan of mobility to Porto Alegre contained projects, all under the responsibility of the City Hall (MATRIX ... 2015 c). Of these, five were completed: three overpasses (access roads) and expansion of two-way surrounding the Beira-Rio Stadium (PROMISED 2015). No work was completed before the Cup. A peculiar case was the length of two kilometers from Avenue Severo Dullius in the north of the city. It was "a work planned to compose the road ring that would give access to the international airport and regarded as essential within the city's urban mobility plan to host the World Cup. Nevertheless, the work has not yet got off the ground. The latest forecast of the municipal government to start the work would be September 15 this year, which did not occur. Currently, the city of Porto Alegre informs that there is no provision. "(PROMISED 2015). With this, we have an idea of the World Cup legacy in Porto Alegre.

5.4 Recife

The city of Recife is in the state of Pernambuco, northeastern Brazil. Founded in 1537, on a plain formed by islands, peninsulas, swampy mangroves surrounded by rivers and have about 1.5 million inhabitants.

The World Cup Games in Recife happened in Pernambuco Arena, the stadium that received the football matches. This is a new stadium with capacity for 46,000 people, public-private partnership contract. In the Confederations Cup in 2013, there were three matches, and in the World Cup five games. The Arena Pernambuco is located in São Lourenço da Mata and the sports complex became known as the City Cup.

The city of Recife was organized for the arrival of the games, some actions signed up with the Federal Government, the State Government of Pernambuco and Recife City Hall. Investments in mobility for the city of Recife were distributed in seven projects: BRT East / West Extension Cup City, BRT: North South - Excerpt Igarassu / Tacaruna / Center Recife, Corridor Caxangá (East-West), Via Corridor Mangue, Metro: Terminal Cosme and Damian (MATRIX ... 2015 d). Works surrounding the Arena Pernambuco, subway station Cosmas and Damian and Viaduct of BR-408, entered later in a nearby matrix (BRAZIL, 2014). According to Bernasconi (2013), the Sports Ministry published in 2010 all works related to the World Cup in 2014, included the figures, timelines and responsible works. The lists created for the mega event organization has experienced three changes and the last one was in 2013 for budgetary reasons.

The BRT East Project / West Extension Cup City included the connection of Caxangá Avenue through the UR-7 (neighborhood in the city of Recife) with the World Cup City, in a stretch of three kilometers in Sao Lourenco da Mata, meeting the integrated terminal and the Camaragibe subway station. The Government of Pernambuco was responsible for the work. The internal extension that gives access to the circulation around the stadium was completed a month before the start of the Confederations Cup in June, 2013. The external extension that goes from the Arena Pernambuco and follows the bus terminal had paralyzed the works for reasons of expropriations, rain and contractual problems. Due to these reasons the extension was reduced by one kilometer (BARBOSA, 2015).

The author of the aforementioned report also states that the BRT North / South Excerpt Igarassu / Tacaruna / Recife Center continue in the implementation phase. Nineteen of the twenty-five BRT stations that make the system work and six are under construction. That is, the work follows in the process of completion after the World 2014. As for Caxangá East / West corridor is paralyzed without forecasting conclusion.



The Hall of Via Mangue is an expressway with unique corridor to the south of the city of Recife, 4.5 kilometers long. The project runs through the mangrove Pina, a preservation area and includes a bike path. The construction of the Via Mangue was not completed within the deadline (BARBOSA, 2015).

Also, according to the report, there are two related projects around the Arena Pernambuco: Metro Station Cosmas and Damian, whose work was completed within the period provided by the city and the Flyover of the BR-408, also completed on time for the games. The Integrated Terminal Cosme e Damião was opened on the same day of the first game of the World Cup at the Arena Pernambuco, June 14, 2014. A cidade do Recife encontra-se no estado de Pernambuco, região Nordeste do Brasil. Fundada em 1537, sobre uma planície formada por ilhas, penínsulas, manguezais alagados envolvidos por rios e possui cerca de 1,5 milhão de habitantes.

5.5 São Paulo

The city of São Paulo was founded in 1554 and it is situated at an altitude of 860 meters on the plateau of Piratininga. With a population of about 11 million people it is located in Southeastern Brazil in the state of the same name, which is the most crowded of the country.

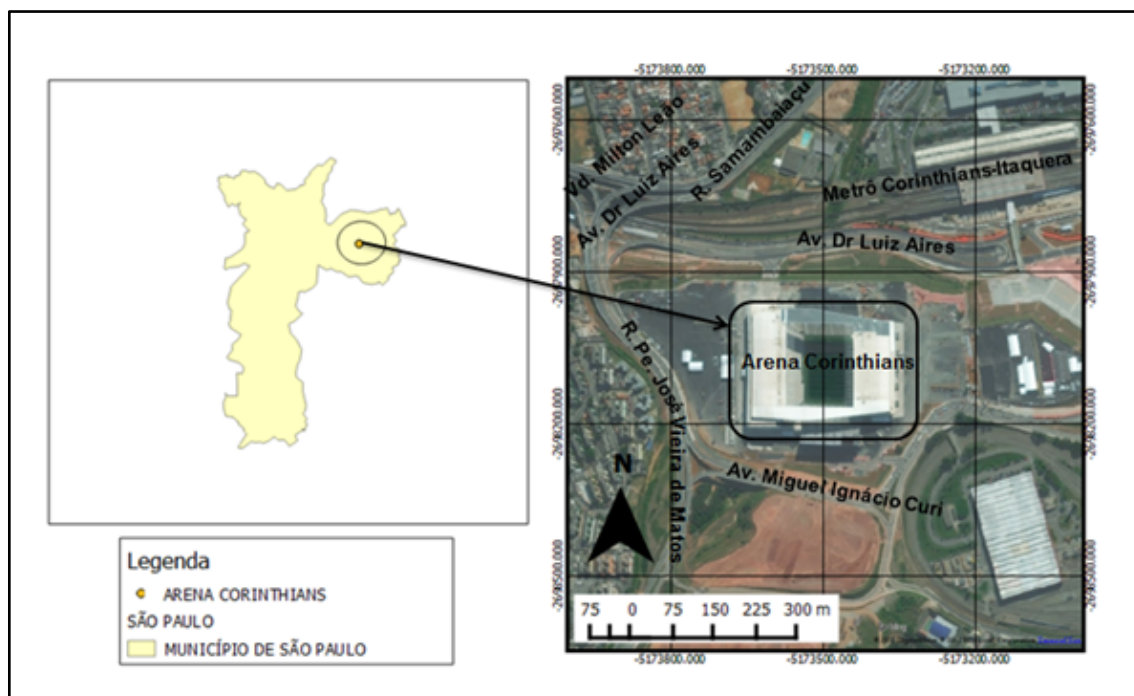
The city hosted the opening of the games and other games of at World Cup June 2014 at the Stadium Arena Corinthians, built with private contract by which the Corinthians team contracted a loan of R\$ 400 million from BNDES (National Bank for Economic Development and Social) and Caixa Econômica Federal to be paid in 180 installments.

The site chosen for the new building was in the one of the most populated areas of the city, the East Zone. The surroundings of the Stadium Arena Corinthians was awarded with the road system improvements, including the subway Corinthians Itaquera station. Map 2 shows its location

At the beginning of the plan, the competitions were planned to take place at the Morumbi stadium. Along with the monorail deployment project Line 17 - Gold that "during the World Cup, would have the task of bringing fans from Congonhas airport to the Morumbi neighborhood "(BERNASCONI 2013. This p.146). The Responsibility Matrix presented to São Paulo a new mode of transport: the monorail, which would be an extraordinary and innovative legacy (MATRIX 2015). However, with the decision to move the matches to the new stadium, the monorail has outlived its usefulness as a means of transport to be used for shifting the World Cup matches. Therefore, the mobility plan for the city of São Paulo at first was directed to another region in the city and it was much more ambitious. With the game site change the matrix took another direction. The construction of the new stadium and the surrounding road system began in September 2012, i.e., with only two years to the start of the mega-event. As for the monorail, it is believed that it would not have been ready in time to suit users of Morumbi, if this stadium had been renovated, since there were "delays in the necessary expropriations for the work, they faced legal challenges by the low indemnity values or related problems in housing policies "(PROMISED ..., 2015). The fact is that it is not ready until today.

Thus, the urban mobility projects for the World Cup in São Paulo were reduced basically road interventions in the vicinity of the East Zone Development Center, a project developed by the Municipality of São Paulo Municipal Government in partnership with the State Government in 2011, encompassing educational institutions (Fatec / Etec / Senai), forum, convention centers and events, social work, among others, and even a road. The stadium is part of the Polo too, although not all other works have been completed until now.

The road interventions around the stadium can be seen in the figures 1-3.



Map 2 - Location of the Arena Corinthians in São Paulo and legacy of urban mobility in the environment.

Source: Ana Maria Marques da Costa, 2015.

Figure 1 shows the a cover that was built on the walkway access to Corinthians-Itaquera subway station. Both the station as the runway already existed.

Another work of the surroundings of the stadium was the Milton Leão viaduct (Figure 2). Before there was no direct link by car or on foot by integrating the street Pe. José Vieira de Matos (Artur Alvim) and other nearby streets to Samambaiçu Street and City Antony Stephen de Carvalho, due to the red line 3 subway and the line 11 Coral of the Companhia Paulista de Trens Metropolitanos (CPTM) constitute a barrier.

The white metal footbridge over Luís Aires Avenue and the Metro Red Line has also been built exclusively for the World Cup, linking the two sides of the avenue, and giving access to neighborhood residents Stadium (Figures 3 and 4). The bike path shown on the line of the subway (Green Path) existed previously.



Figure 1: Entrance walkway coverage and leaving the Corinthians-Itaquera subway station. Avenue extension Luís Aires.

Source: Ana Maria Marques da Costa. October/2015.

Fonte: Ana Maria Marques da Costa, outubro/2015.



Figure 2: Overpass Milton Lion, built to connect the two sides of Av Luís Aires..
Source: Ana Maria Marques da Costa. October/2015.



Figure 3: the walkway that connects the Av. out Luís Aires to Arena Corinthians (left)...
Figure 4: walkway that connects the two sides of Av Luís Aires (dir.).
Source: Ana Maria Marques da Costa. October/2015.

The bus terminal of Corinthians-Itaquera was expanded. Shelters have been improved and the buses that provide service there were modernized.

In informal interviews held on 07.26.2015 in the afternoon, the resident of the neighborhood Paulo, a trader, reported that he was present during the construction of the stadium. In his view, there was appreciation of real estate, cyclists circulation on the bike path named Greenway increased and there was also growth in the movement of pedestrians and vehicular traffic after the implementation of stage, especially on match days.

Maria José, who has lived in the neighborhood for 30 years, noted increased traffic flow and complained that there was disruption of the asphalt during the construction of the stadium, caused by trucks flow. After completion of the project this problem was solved.

Margarete, who has lived in the neighborhood for 16 years, believes that access to the Itaquera station was improved because there was no pedestrian walkway with access to the stadium and station before. She said that there was also the opening of small passage with access to the new walkway towards the Samambaiçu Street and Overpass Milton Leão, linking the stadium to the other side of the Radial Leste, this stretch called Dr. Luís Aires, as can be seen in Figures 5 and 6.

She believes, however the walkway offers no security with the presence of homeless people, dirty and stench and it is not totally being used by pedestrians as shown in Figure 7.

Margarete also said that the offer of bus transportation for the line 407I/10 in the way to Bresser subway station, formerly followed by the terminal Dom Pedro II, and after the World Cup the route was reduced and the line ends in Bresser terminal. Next to the stadium there is a football pitch that is not frequently used by residents for lack of security. Some people do walk on site. Even with all these works, she concluded that there was no improvement to the neighborhood itself, just next to the stadium.



Figures 5 and 6: Pass with access to the new walkway towards the Samambaiacu Street and Flyover Milton Lion.

Source: Ana Maria Marques da Costa. October/2015.



Figure 7: Catwalk giving access to the stadium with standing water and trash.

Source: Ana Maria Marques da Costa. October/2015.

In day of the games, she complained that there was no lighting nearby, the site frequently used by the users of the stadium as parking, which was also discussed by Cintia, resident for six years in the neighborhood, who states that the parking of cars on residential streets hinders access of residents, in addition to loud noise it may generate. She believes that there was no benefit to the local population.

We realize that these residents do not see the new access roads as benefits to the neighborhood, because the stadium had not received any improvement for the use of residents, such as schools or health centers. The Development Polo already contained Fatec, Etec and Senai, although they have begun to work in this period. The safety issue has not been resolved with the works, since there is no police on the catwalk and stretches the stairs leading to Dr. Luís Aires Avenue Radial Leste sense. This resident also commented on the value of real estate, a fact considered positive.

There were also public transport users interviewed in front of the Itaquera subway station at the bus stop on Luís Aires avenue, going downtown. The first interviewed reported that performs loading and unloading in Itaquera station 10 years ago. According to her opinion, after the World Cup access to the station around the streets improved, and the offer of transport supplied by buses grew; there was a reduction in waiting time and shipping; signs for vehicles and pedestrians was expanded; there was also reduction in local traffic. Another respondent also praised the transport after the World Cup, with the construction of access to the bus terminal. There was a change in the urban landscape for better, and even the implementation of FATEC and ETEC Itaquera. He mentioned that the shelters are comfortable with coverage and bench there is subway walkway coverage with access to the Radial Leste avenue; the respondent added that the buses have air conditioning and are bi-articulated. He made observations on the non-motorized transport: paved sidewalks and signposted in Portuguese and English for pedestrians and extension of the bike path.

Two other respondents gave similar points of view. Only one of them did not think there was faster travel time from his origin to his destination.

6. Final Considerations

This research presented some urban mobility projects that formed Array Responsibilities planned by the three spheres of the government in five host-cities during the 2014 FIFA World Cup games. It was clear that not everything was concluded on time to be used during the event. Such a mega-event like the FIFA World Cup or the Olympic games, to be hosted in Rio de Janeiro next year, requires a lot of professionalism and dedication on the part of the political rulers and society. All were present and even considering this, there were some delays in work. Major anticipation at the beginning would certainly have helped. Causes of delay have not been studied more deeply in this article.

Nevertheless, it is clear that the nation began to look differently to urban mobility. First, because it understood that our cities are really late concerning improvements and modernization. Also, they introduced new public transport systems for the population's use even though its conclusion had not been accomplished for the Cup and not yet until the end of this research. Even though when all the work mentioned in the Array Responsibilities are accomplished, Brazilian cities, host or not of the games, will still need much more than a simple enlargement of their road systems. It became clear the real importance to form people with adequate professional qualification to make it possible to change the future of urban mobility.

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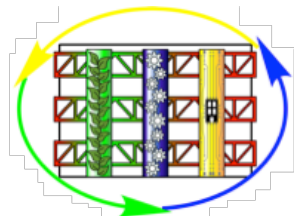
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Corporate Atmosphere in educational institutions: The influence on productivity

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Corporate Atmosphere in educational institutions: The influence on productivity

RESUMO:

Clima organizacional vem sendo vital para as organizações, por mostrar como anda o ambiente interna, podendo se tornar um grande diferencial sobre a concorrência por aumentar a qualidade e produtividade dos colaboradores, pois estariam trabalhando motivado e valorizado. Verificar, analisar e compreender se o planejamento, os processos e a percepção do clima organizacional afeta e interferem na relação entre os colaboradores e organização. O artigo foi desenvolvido por meio de uma pesquisa qualitativa e descritiva, cujos dados foram levantados em fontes bibliográficas, documentais em entrevistas na cidade de São Paulo. Os resultados descritos neste artigo foram baseados nas informações colhidas nas entrevistas, em loco e também foram colhidas informações nos sites da organização. As informações retiradas dos sites da organização contribuíram apenas para complementar a sua descrição. Notou-se que para as organizações de ensino superior brasileira o tema pesquisa de clima organizacional pode ser considerado como algo novo, e há poucos estudos sobre o assunto, e são poucas as organizações brasileiras que estão tentando desenvolver um enfoque próprio, adaptado à realidade e momento brasileiro.

Palavras chave: Clima Organizacional, Instituição de Ensino, Processos e Percepções.

ABSTRACT

Corporate Atmosphere has been vital for organizations, by showing which is the internal environment situation, what may become a great advantage over competition, by improving the quality and productivity of workers in case they are not working motivated and are not recognized. The target is to verify, to analyze and to understand whether the planning, processes and the perception of Corporate Atmosphere affects and interferes in the relationship between contributors and the organization. This article was developed through a qualitative and descriptive method, whose data have been collected in bibliographic sources and documentary interviews in São Paulo. The results described in this article were based on information gathered in interviews on site and some information was collected on the corporation's websites. The information extracted from the corporation's sites contributed only to complete description. To the Brazilian high degree educational corporations this subject, Corporate Atmosphere survey, can be considered as something new. There are few studies about it, and there are few Brazilian companies that are trying to develop their own approach, adapted to the reality and to this specific moment in Brazil.

Key-words: *Corporate Atmosphere, Educational Institution, Processes and Perceptions.*

Introduction

Several studies have analyzed the subject as theoretical framework in an institution of high educational degree at different levels of understanding and implementing the organizational context. It is possible to find in the literature settings for corporate atmosphere, which require the construction of a theoretical model to explain how these different concepts are articulated and can contribute to the understanding of organizational development proposals.

Corporate atmosphere (CA) is becoming more vital for organizations to show how the internal environment is, and may become a great advantage over the competition by improving the quality and productivity of employees, because they would be encouraged to work and obtain recognition.. For the reason mentioned above it is possible to say that planning and organization processes are including CA vision, so at least, once a year a research is applied to understand the internal environment, making it possible to assist in decision making, improving the environment, ultimate quality and customer loyalty.

In the academic literature on corporate atmosphere research in a high degree educational institution related to the educational sector there are few studies on the subject (BURGESS et al, 2005). Two studies identified in Brazil's literature were Costacurta and Bispo who more often appeared in the literature. In their studies, the theme was the process of implementation of corporate atmosphere research in a high degree educational institution - The case of the Catholic University of Brasilia (UCB) and a new corporate atmosphere research model has carried out a qualitative research to identify the causes of this corporate atmosphere.

What is the importance of corporate atmosphere research in a high degree educational institution? Why in the observed location there is no research, so that it was noticed that employees are not working in good corporate atmosphere, with no commitment and specially with no proactivity. They are limited and only do what is required.

The verification of the processes and perceptions of corporate atmosphere (CA) interfere in the relationship between employees. While analyzing the CA in high degree educational organization it is possible to understand how CA affects organizations. This study aims to contribute to the elucidation of issues related to the theme: corporate atmosphere research in a high degree educational institution.

Therefore, it was decided to adopt case study methodology that seeks to understand the corporate atmosphere from the employee's point of view and based on social principles. Therefore, we aimed to fill the theoretical gap identified in the relationship between corporate atmosphere, their types and models.

The study is divided into five sections, including this introduction. In the first section the question of the theoretical framework is discussed; Corporate Atmosphere (CA); Types of corporate atmosphere and research models. The following are detailed methodological aspects; bibliographical research, exploratory research. In the third section, the organization was presented in the fourth section, data analysis, where efforts will be directed to the corporate atmosphere in educational institutions. Final conclusions are exposed in the last section.

1 Theoretical Framework

1.1 Corporate Atmosphere (CA)

According to Dutra; Veloso; Fischer; Nakata (2009), corporate atmosphere had its first study lead between 1924 and 1933, still in the social atmosphere model. (BOBADO; BUSTAMANTE, 2015), conceptualizes CA as the developer's vision at a certain time with the possibility to figure if the environment is good or bad.

Corporate atmosphere seeks to show how employees see the environment and if corporations have been concerned enough to understand and improve it, by affecting directly the productivity of the

organization (PIGGY; GUIMARÃES; ROSAL, 1998) and corporate atmosphere. Searching is an important tool to understand the material and emotional satisfaction, apathy, the turnover, the relationship and integration of all employees, that makes it clear that this tool has improved the performance of a huge corporation (OLIVEIRA, 2009).

According to Santos; Vásques (2012), corporate atmosphere survey as support to understand that evaluation in high degree educational institutions is effective. It helps in the development of quality education, showing where and how to improve it. According to Menezes and Gomes (2010) it is clear that corporations in general, accurately take care of the differences at the beginning of all studies addressing the topic CA, in addition of showing the importance of corporate atmosphere for organizations and modern management.

According to Bolzan et al (2009) the corporate atmosphere on the perspective of an educational organization becomes clear and so it shows how this tool is important for the quality of the organization, and reinforces that this that should be a constant concern and would improve the corporation. All aspects of the environment, planning, processes and corporate atmosphere are connected considering that with the survey it is possible to check how the internal atmosphere is to detect possible problems, solutions and improvement of processes, considering the point of view of those who are dealing with specific functions daily and would be able to know if it may or may not work.

Planning is the act of making profiles trying to predict the future. It is established to determine what will be done, i.e., how will the process be done to accomplish certain activities. With the CA cooperating with this task, trends become more efficient and effective. How to implement a corporate atmosphere survey in an organization taking into account the causes, consequences of processes within the same and mainly showing the perception of HR employees adapted to the organization's needs (OLIVEIRA; MORAES, 2012).

Costacurta and Maiochi (2010), argues that the high degree educational institution applies corporate atmosphere survey as a strategic vision on how to handle your indoor environment, know your employees, set a staff profile suitable to certain tasks and thus increase the quality of the service provided, retaining the students and even getting new students through indications of the part of those that are already studying there. High degree educational institutions are increasingly concerned about the perception of employees about corporate atmosphere and seeking to understand and improve their environment, so a study was conducted to enable entering the organizational atmosphere in this environment and consequently improving the quality in the environment and also the production process of the organization.

Bispo (2006), seeks to introduce a new corporate atmosphere survey model that would suit to all organizations, whether private or public, with the main different characteristics to evaluate and present realistically the corporate atmosphere in organizations, raising problems, criticisms and suggestions, enabling the elimination of small problems and finding different solutions to improve the internal environment of the organizations.

According to Santos; Neiva; Andrade-Melo (2013), perception is totally linked to corporate atmosphere because some changes interfere completely in the planning, processes and employee motivation. (CEIA, 2011), says that the perception of an educational employee is a reflect of the CA being different for the most part, but with small influences of colleagues.

According to Ceia (2011), the corporate atmosphere of the training process is dependent on other variables such as planning, communication and decision making processes, but other authors such as (BONATTI, 2011), disagree that vision with a view to search directly helps in understanding how is the internal environment, leading to focus on certain processes to maintain quality or even improving the environment, improving planning efficiency. The CA is related to absenteeism according to (BONATTI, 2011), it directly influences the processes of an educational organization, for in several activities a developer needs the other to complete the process, affecting directly or indirectly the climate of the organization.

According to Rebechi (2011) you can base your planning through corporate atmosphere survey and human perceptions so that it will be easier to correct internal problems and strengthen what is correct, generating differential and also building the design of the future of the organization. Consoni (2011), raises a very important question about CA survey on the perception of the employee saying that the manager may understand better how is the ambience going on enabling him to make decisions more accurately and effectively contributing to the processes and planning.

1.2 Types of corporate atmosphere and research models

Luz (2003), points out that CA can be good, bad or damaged. Being good is when employees are happy, indicate colleagues and relatives to work in the organization. Damaged or bad is when some decisions have reflected in a negative way for a long time and create tensions, low productivity, etc. It is considered almost entirely bad is when the organization presents a high turn over.

Mello (2004), divides CA as excellent, good, bad and jeopardized based on individual perceptions of the organization's employees. Bispo (2006) defines the atmosphere as favorable, more or less and not favorable.

Table 1: Results provided by Human Resources with the various levels of corporate atmosphere.

CLIMA ORGANIZACIONAL		
desfavorável	mais ou menos	favorável
⇒ frustração,	⇒ indiferença,	⇒ satisfação,
⇒ desmotivação,	⇒ apatia,	⇒ motivação,
⇒ falta de integração empresa/funcionários,	⇒ baixa integração empresa/funcionários,	⇒ alta integração empresa/funcionários,
⇒ falta de credibilidade mútua empresa/funcionários,	⇒ baixa credibilidade mútua empresa/funcionários,	⇒ alta credibilidade mútua empresa/funcionários,
⇒ falta de retenção de talentos,	⇒ baixa retenção de talentos,	⇒ alta retenção de talentos,
⇒ improdutividade,	⇒ baixa produtividade,	⇒ alta produtividade,
⇒ pouca adaptação às mudanças,	⇒ média adaptação às mudanças,	⇒ maior adaptação às mudanças,
⇒ alta rotatividade,	⇒ média rotatividade,	⇒ baixa rotatividade,
⇒ alta abstenção,	⇒ média abstenção,	⇒ baixa abstenção,
⇒ pouca dedicação,	⇒ média dedicação,	⇒ alta dedicação,
⇒ baixo comprometimento com a qualidade,	⇒ médio comprometimento com a qualidade,	⇒ alto comprometimento com a qualidade,
⇒ clientes insatisfeitos,	⇒ clientes indiferentes,	⇒ clientes satisfeitos,
⇒ pouco aproveitamento nos treinamentos,	⇒ médio aproveitamento nos treinamentos,	⇒ maior aproveitamento nos treinamentos,
⇒ falta de envolvimento com os negócios,	⇒ baixo envolvimento com os negócios,	⇒ alto envolvimento com os negócios,
⇒ crescimento das doenças psicossomáticas,	⇒ algumas doenças psicossomáticas,	⇒ raras doenças psicossomáticas,
⇒ insucesso nos negócios,	⇒ estagnação nos negócios,	⇒ sucesso nos negócios,

Source: Bispo (2006)

Based on all of the concepts presented in this article we can say that everyone is saying the same thing, because all models are based on the perception of the employee within the internal environment. So, corporations, after have checked these concepts, often use one of the techniques

below, taking into consideration what kind of information is required, or they can even join other corporations and then obtain data with higher quality (CONSONI, 2011; LIGHT, 2003).

Table 2: Advantages and disadvantages of each technique.

QUESTIONÁRIO	ENTREVISTA	PAINEL DE DEBATES
<ul style="list-style-type: none"> - Permite aplicação maciça, mesmo quando a população alvo está espalhada por uma ampla área geográfica; - Custo relativamente baixo; - Geralmente é mais aceito pelos respondentes, pelo fato de as empresas usarem como premissa a preservação do anonimato. Isso garante maior credibilidade a esta técnica; - Não utiliza um número elevado de questões, em geral, de 40 a 80 perguntas; - Permite inclusão de perguntas cruzadas; - Exige clareza do vocabulário usado: tem de ser validada; - Pode ser aplicado a todos os funcionários da empresa ou a uma amostra deles; - Permite a aplicação eletrônica das perguntas; - Não exige espaço físico apropriado para obtenção das respostas. 	<ul style="list-style-type: none"> - Quebra o anonimato da pesquisa; - Método mais demorado do que o questionário; - Mais dispendioso do que o questionário; - Exige pessoas tecnicamente habilitadas para conduzi-la; - Obtém respostas verbais, como também componentes não-verbais; - Quando o número de respondentes é elevado, requer muitos entrevistadores, o que acaba comprometendo a uniformidade e neutralidade dos entrevistadores na interpretação das respostas. 	<ul style="list-style-type: none"> - Mais econômico do que a entrevista, visto que os entrevistados são submetidos em conjunto a essa técnica; - Grupos de 5 a 8 pessoas por sessão; - A grande vantagem desta técnica é que ela permite que um funcionário levante uma questão, dê seu depoimento pessoal, seu ponto de vista, e isso imediatamente funciona como um convite para que os demais participantes apresentem também suas próprias visões do assunto, e concordem ou discordem do primeiro; - Quebra o anonimato dos participantes; - Exige um espaço físico adequado.

Source : Luz (2003)

2 Methodological Aspects

According to Morin (2000), the method is the path for the construction of knowledge. The survey method chosen was the case study, because it is understood that it is more adequate to the intended goals and the questions that guided the study. Tull and Hawkins (1976, p. 323) states that "a case study refers to an intensive analysis of a particular situation." According to (YIN, 2005), the preference for the case study is due to contemporary events, in situations in which the relevant behavior can not be manipulated, but in which it is possible to make direct observations and interviews. The study was conducted with an external view on the part of the researchers, without involvement or manipulation of any information and facts raised by the study are contemporary. Among the applications for the case study cited by (YIN, 2005), this study focused on describing the context of real life with a descriptive evaluation.

The observation, according to (LAKATOS and MARCONI, 2003, p. 190), "is a data collection technique to get information and uses the senses in obtaining certain aspects of reality." It is not only to see, see and hear, but also to examine facts or phenomena to be studied. Brainstorming is a method in which all team members are encouraged to express their ideas without any censorship. For HISRIC and PETERS (2004, p.166), it is "a process not structured to generate all possible ideas about a problem within a limited period of time, through spontaneous contributions of the participants"

The case study is useful and according to Bonoma (1985, p. 207), "... when a phenomenon is

broad and complex, where the body of existing knowledge is not enough to allow the proposition of causal issues and when a phenomenon can not be studied outside the context in which it naturally occurs. " The objectives of the Case Study Method are not the quantification or enumeration, "... but instead of this: (1) description, (2) theoretical development, and (3) the limited test of the theory, i.e., in a single word the goal is understanding. " In the empirical part of this study some situations that occurred are described situations and compared to the theory and restricted to the researched organization. The basic qualitative research of exploratory character was applied; as a way to become familiar with a subject still not well known yet, little explored, as defined by (Godoy, 2006). This kind of research is most appropriate when dealing with few known issues, which have descriptive purpose and whose search is based on the understanding of the phenomenon as a whole. Second (Rynes; Gephart, 2004), an important value of qualitative research is the description and understanding of actual human interactions, senses, and processes that are the scenarios of organizational life in reality. Qualitative research is becoming more effective in the areas of education and organization management.

According to Merriam (1998), interpretive qualitative studies can be found in the disciplines applied in practical contexts. Data is collected through interviews, observations and / or document analysis. What is asked, what is observed, which documents are relevant will depend on the theoretical study of the discipline. The research can be classified according to the type applied, in which the investigator is driven by the need to contribute to practical purposes, searching for new solutions to everyday problems. "Their concern is less focused on the development of universal value theories than for immediate application in a circumstantial reality" (GIL, 2010).

In accordance with Flowers (1994), qualitative data are prepared by procedures and techniques such as in-depth interviews, participant observation, work on field, review of personal and official documents. Also presented by (Flores, 1994), from the transcripts of the interviews it was possible to gather the data, that is, all information provided from the interactions of the subjects to the researchers, the activities and artifacts present in their contexts.

The article was developed through a qualitative and descriptive research, whose data were collected in bibliographical and documentary sources in interviews in São Paulo. Being a qualitative research, there is no rigid rules regarding the appropriate number of subjects mentioned in the interviews. In addition to this, a fact that may change during the study is a need for additional information or in case of exhaustion, as it becomes redundant (Merriam 1998). The interviews for this article were conducted individually in the workplace, with employees at different hierarchical levels.

The interviews were conducted between 03- 04/11 of 2015. The interviews were conducted in the directors workplace during office hours, to make the participation of all easier. To achieve the purposes of this study an interview script was prepared based on the described theory. Data were analyzed in two parts: a) analysis and understanding the bibliographic and documentary research on the subject; b) analysis and understanding of the interviews. The analysis was descriptive. The data collection was carried out through semi-structured interview. In this type of work, the researcher must follow a set of predefined questions, but this is done in a very similar way to an informal conversation context, and it is possible to include new issues if necessary. Through the analysis of documents it was possible to check whether the planning, processes and the perception of organizational climate affect the relationship between employees. Respondents were chosen due to the fact of being associated, directly or indirectly, with the theme of corporate atmosphere research in a high degree educational institution.



3 Organization

An institution of high degree of education located in São Paulo, with more than 60 years of experience in education in Brazil, one of the largest institutions.

According to the official site of the searched organization, it has five units and the Graduate Center, located in the capital of São Paulo, close to the Subway stations and bus stations, and four poles located in the cities of Bauru, Botucatu, São Manuel and São Roque, totalizing 10 units throughout the state of São Paulo. It has more than three thousand employees to assist more than a hundred and fifty thousand students, who are divided into several classrooms and distance learning courses as undergraduate, technologist, expertise & MBA, master and doctoral degrees.

The organization invests in the development and seeks to provide opportunities for all employees providing professional and personal growth. However, in contacts with employees from various sectors we can see that the lack of planning together with the lack of communication in making decisions on the part of some managers have affected the organizational climate generating dissatisfaction, demotivation and proactivity. There is then a loss of productivity in the final performance.

This situation can be illustrated from the delay of a decision of whether the institution will amend a holiday, so that employees can program themselves, as the decision to change procedures or systemic improvements.

Such a situation occurs because the decisions are centralized in some people, taking into consideration that the decision has to be made first and only then communication's start up allowed. This may take some time because the managers are not always in the Unit or may be busy with other activities what may cause some delay. Some departments may also become aware of the news before than others. This can be considered as a lack of planning, due to the fact that decisions often occur at the last minute or may change after had already been announced. Some contributors point out that the processes for decision-making influence directly the organizational climate because in many cases the manager has to delegate the case to someone with higher hierarchical level, who will subsequently forward it to another person who will in fact solve the problem.

4. Results and Discussions

The results described below were based on information gathered in the interviews and were also collected on the organization's website. Information extracted from the organization's sites contributed only to complete the description. The results of the study aimed to answer which is the importance of climate research in a high degree educational institution. The results presented seek to translate the researcher's interpretation, constructed from the analysis of the responses obtained in the interviews and the data gathered from the on-site observation in the organization. Information was studied in order to present reflections that may contribute to organizational climate research in a high degree educational institution in order to contribute to verify which is the importance of corporate atmosphere in an educational organization. It was possible to identify that the organization is not introducing the organizational atmosphere survey on its day-to-day activities. The negative influence of this can be noticed in many different points mentioned such as communications, for instance.

Table 3: Points of view about Corporate Atmosphere

Managers (three)	
1- How is the communication within your organization?	<ul style="list-style-type: none"> • There is still certain reluctance in communication. To be improved . • There is a lack of communication between the different departments of the company. Sometimes goals and objectives are not clearly defined. Procedures are constantly changed without adequate training of employees. Top management makes decisions, which are not clearly explained to others. • Communication in all levels should be more effective. Despite the available tools it is clear that internal conflicts reflect externally to final customers. This could be avoided if there were no distortions in communication.
2- Do you agree with the management's perception about daily activities?	<ul style="list-style-type: none"> • This is not perfect. It is clear they are searching for solutions to help the employee. • In order to have some synergy between hierarchical levels, management tries to understand the employees' needs besides the lack of time. • Some times high management's perceptions are distorted due to the lack of knowledge about routine procedures necessary to accomplish activities.
3- Is there, in your opinion, a good relationship among employees, besides their position?	<ul style="list-style-type: none"> • Besides the relatively huge number of employees, departments are harmonious. There is only a slight difference among employees that work on different shifts but that, in general, does not compromise the relationship of the team. Events such as monthly birthday's parties and some meetings make people closer. • Professional, looking for information to be more qualified in a better ambience • Employees have a good inter-personal relationship.
4- Is the company open to receive and accept the employees' criticisms, opinions and contributions from employees?	<ul style="list-style-type: none"> • I partially agree. A manager directly connected to the team requires open mind to suggestions, opinions and criticisms. There is no action on the part of the company, i.e., an open channel with this purpose. For this reason intranet is used. • It is very difficult to make any changes in the process of activities that normally involves too many bureaucratic actions. • This is a project that should really be applied because it is mature and made everyone surprised not only by its optimization but also because of the satisfaction of those involved.
5- Would you like that a research on corporate atmosphere be made in your company? (In case there is already one, please do not consider this item).	<ul style="list-style-type: none"> • Sure, because a company totally committed with their employees needs clearly reaches the proposed goals. • Organizational climate researches could be frequent and open to all, from employees to managers. • Not only climate research but the improvements that could be applied.
6- Do you believe that your company needs improvements in the process of corporate	<ul style="list-style-type: none"> • Even considering that the employees have a good relationship, the excess of bureaucratic work and sometimes "heavy work" make them fragile with inadequate performance.

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atmosphere?	<ul style="list-style-type: none"> •I believe that improvement in the corporate atmosphere process will be reached through better interaction among team and managers. •Yes, this is the ideal.
7- Do you believe that your organization needs improvements in the planning of corporate atmosphere?	<ul style="list-style-type: none"> •As mentioned before, lack of time forces people to concentrate on processes and not on workers in fact, in the corporate atmosphere itself. •The worker needs do feel at easy and welcome in his environment in the company and not feel abandoned. •Before starting the worker should know where to start. So, my answer is yes in this case.
8- Does organizational climate affect your productivity or motivation?	<ul style="list-style-type: none"> •Professional motivation is not associated to increase in salary but with recognition. •I partially agree because motivation should first start inside ourselves according to our own determinations. On the other hand, an environment in which communication, organization, equipment and others are committed, certainly affects productivity of any worker or manager. •A nice atmosphere in the companies cooperates to have a more relaxed employee to develop his activities.
9- How do workers see the environment?	<ul style="list-style-type: none"> •Many workers spend more time in the company than at home. So, the environment should be a place where they have the pleasure to be at. Some of them face work as a bad place to be. •A place useful to many of customers' needs but like many other companies there are some aspects that have to be improved. •As a manager, I feel there is some dissatisfaction regarding some sudden changes in processes workers are used to as well as there are some tools that are not adequately applied and may affect productivity.
10- How corporate atmosphere may better support employees? Why?	<ul style="list-style-type: none"> •A nice environment where people find support, are welcome and feel good contributes to make the employee feels he is really part of the team, becomes motivated and cooperate not only to his own growth but also the companies'.. •When there is lack of information, of opinions and suggestions among employees and managers as a whole, it is more easy to identify possible mistakes and correct them, improving the environment. •Looking for the best of each one and developing such qualities. No one looks like the other so, to find similarities you have to work with different forms.
11- Which suggestions do you recommend to improve corporate atmosphere in your organization?(Communication, motivation and satisfaction, etc.).	<ul style="list-style-type: none"> •There is no doubt that the best way to improve corporate atmosphere is to invest in communication. When employees are well informed, through meetings, training and other procedures, they feel more prepared to deal with daily situations and will certainly be happier in work. Besides the fact this already happens, it is necessary to increase frequency. • Board of directors should first listen to frontline and verify effective day-by-day problems and which would be the more common ways to solve them. Technology should be applied, infra-

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	structure improved and communications supported. All decisions should be passed along to all employees.
	•Investment and recognition. There are many companies considered business models.
12 Which is the importance of the corporate atmosphere at this moment?	<ul style="list-style-type: none"> •Very important because the company has been through some changes and everyone feels insecure, the worker becomes tense and this affects his productivity directly. •Corporate atmosphere climate is priority and should be effective despite the fact that this is not an easy task, considering the culture already established in the company. •Common satisfaction, all that may reach all personnel involved that leads to increase in productivity and consequently profit to the company and motivation to the employee.
Workers (10)	
1- How is the communication in your company?	<ul style="list-style-type: none"> • Some subjects are not clear enough. There is no communication on the part of other departments. •In the great part of time, information is clear.
	<ul style="list-style-type: none"> •Management keeps too much information without sharing with others and this cause bad service. •Financial manager announces communications too late. Each manager leads his team in a different way, has different opinions from the other managers and this generates problems in the operational departments. In general, the commercial manager becomes quiet in front of board of directors. •Communication between departments fails. •People too distant from each other, focused on their own duties. •There is lack of communication. •I am one of the people responsible for internal communication. I have the goal of reformulating this area. •The institution has a very good system that needs training and transparency.
2- Do you agree with management perception about day by day?	<ul style="list-style-type: none"> •I do agree with management and the procedures adopted by operational management because they have same vision as the one of those who daily execute tasks at work. •They should be more present. Some workers's devotion are not always effective. Some are better when issuing opinions and do not devote themselves as they should. •They do not transmit to workers the decisions that will be taken.
3- Is there in your opinion a good relationship between workers, independent from position?	<ul style="list-style-type: none"> •Workers, apparently, have a good relationship with no discrimination or lack of respect between them. •During the spare time, yes. •Sometimes it depends on each one temper. •There is some empathy between workers and managers. • There is a good relationship between workers and consequently good communication.

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	<ul style="list-style-type: none"> •In my opinion there is and there should be a good relationship among workers for a nice environment. Personal problems should be kept apart from work. Each department depends on the other like a real "chain". •Every one helps every one. One depends on each other. •Yes, as far as possible. •All employees interact in the same way inside the company regardless of the position. •All departments interact.
4- Is the Corporation open to receive and recognize the workers' criticisms, opinions and contributions?	<ul style="list-style-type: none"> •All comments are welcome and may be or not be adopted. •It has an open and exclusive channel with HR. •Only my manager is open to comments. The board of directors sometimes does not pay attention to our opinions. •It is possible. •There is survey on corporate atmosphere in the company what gives the impression that it is not interested in knowing if the workers feel good about the it. •I have never participated of any meeting. •We have some opinions sometimes but there is no channel to expose them. •Criticisms are not welcome. •Considering it is a lawyers office it is a little bit hard to work this question. Lawyers have a different profile.
5- Would you like to have a survey on corporate atmosphere in your company? (In case there is already one, please do not consider).	<ul style="list-style-type: none"> •Yes, already done. •The company may obtain better results through workers' motivation and devotion. There is nothing better than research to know if workers are happy. •Yes, surveys would be good to help knowing how corporate atmosphere is going on. •I disagree because there are some people in the company with a childish mind and do not accept positive criticism. I think that this could make corporate atmosphere worse. •If this already existed, it would certainly avoid so many workers with no motivation. There should also be campaigns to stimulate workers' self esteem. •I would really like it.
6- Do you believe that your company needs improvements in the process of corporate atmosphere?	<ul style="list-style-type: none"> • Concern with corporate atmosphere is not perceivable. •Não, em minha opinião o clima organizacional está agradável. •As soon as possible, since there is no action planning after this process. The working conditions would be improved as well as quality of life that reflects on the company's image. •I think we should leave as it is. •Yes, too many. We have started working this question. •Yes, this is a basic need and the more it is elaborated the company will have a better idea.

	<ul style="list-style-type: none"> •The interaction of departments and managers would certainly improve corporate atmosphere. •There is always something to be improved.
7- Do you believe that your company needs improvements in the planning of corporate atmosphere?	<ul style="list-style-type: none"> •It improves the process. •There is no process in the company. •I think we should keep it as it is. •Management should pay attention to corporate atmosphere. •It is important to have some planning for the working ambience so that workers can be proud and feel happy while accomplishing their duties. •Yes. •Yes. This is the major problem.
8- Does corporate atmosphere affect your productivity or motivation?	<ul style="list-style-type: none"> •Our job depends on corporate atmosphere to be well done. The more the employee is recognized, better is the performance and satisfaction. •Totally. Too many workers are not motivated and are leaving the company because of new opportunities that appear and that offer better working conditions.. •Productivity may increase or decrease according to the corporate atmosphere. Same happens with motivation. •It does not interfere. •It depends on each one point's of view. •Sure •Since we depend on each other, with no communication, things may got lost. •Yes. I think this is one of major factors that affect the staff's motivation.
9- How do the workers see environment?	<ul style="list-style-type: none"> •As a second home, since we spend the major part of the day over there. •As a place where there should not be too much interaction. •In my opinion a nice ambience at work helps people's relationship and affects motivation and productivity. •On a daily routine, with no expectations of improvement and promotions. •A nice and calm ambience that generates a nice to work in. •Nice ambience but there is slack of communication between the departments. •Calm, besides the lack of communication on the part of managers.
	<ul style="list-style-type: none"> •Nice atmosphere among workers but with management it is clear there is favoritism. •A department with too many mistakes, mainly in communication. •As a bad one, heavy and dictatorial environment.
10- How can corporate atmosphere better support workers? Why?	<ul style="list-style-type: none"> •Better working conditions, worker more happy will produce more. •In my opinion, a good work environment helps the relationship between people and also affects productivity and motivation.

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	<ul style="list-style-type: none"> •Corporate atmosphere is the reflection of how final product/service will be. So, when it is nice it improves productivity.. • This does not refer to the worker but to management that should analyze how the employee is feeling so that the environment can be analyzed and the working conditions improved to increase productivity. •Since you open the place for exchanging ideas it is possible that the corporate atmosphere improves. •Yes, through corporate atmosphere there are many ways of transforming the ambience into a nice place improving worker's productivity. •If workers feel good satisfaction and motivation may improve. •For the well being. Living together is one of the factors that actuates in corporate atmosphere. •Yes. If well planned it tends to increase workers' satisfaction and performance.
11- Which suggestions do you recommend to improve the corporate atmosphere in your organization (communication, motivation, satisfaction, etc.)?	<ul style="list-style-type: none"> •Communication •I believe that each department's management should improve to avoid too much work to other departments, and so avoid conflicts. •To research and accept opinions for improvement. •In all aspects mentioned above because there are too many things that have to improve as well as some benefits. •The changes should start with management chiefs and board of directors because they have to buy the idea that a nice corporate atmosphere only brings benefits to employees that will better produce for the company. •More communication and interaction with all. •Communication, structure, etc. •Feedback, improvement in communication. •More communication between managers and employees, motivational lectures and better support to departments. •More conversation about how people feel at work and suggestions workers have in mind.
12- Which is the importance of the corporate atmosphere at this moment?	<ul style="list-style-type: none"> •It is important to know how happy the worker is and what can be improved. •In my opinion, a nice corporate atmosphere helps people's relationship and also affects motivation and productivity. •Corporate atmosphere is important at any time, because it makes you understand people's behavior. •It is urgent to prepare an action plan to verify the motivation and satisfaction level of workers. •Very important to make everyone feel good. •It would contribute to a good daily living. • Information and recognition of every employee would be important to the company where I work since we are generally

	<p>forgotten by management.</p> <ul style="list-style-type: none"> •Of extreme importance to a company's evolution and improvements in the environment so that workers better know each other.
	<ul style="list-style-type: none"> •I understand it is essential. •It is very important. Without it company becomes too bossy and does not count too much to workers' feelings. •Corporate atmosphere reveals how is the work in the company. It is important then it is healthy.
Students/Workers (six)	
1- How is communication in your company?	<ul style="list-style-type: none"> •No memos are sent in advance. They are simply related to professional field. •Information is will retained. Not all employees become aware of "News" that could be of general interest. •I believe that communication is considered to be good, simply because tasks that are accomplished in the company require that legal communication be effective. I do not consider it as excellent because unfortunately there are still some mistakes in communication similar to many other companies. • We have an internal portal where the changes that occur in the organization are published.
2- Do you agree with management's perception about your day by day?	<ul style="list-style-type: none"> •Yes, management's position is always the best possible. We know they are qualified to have a widespread perception that leads the company to success. •Management is not concern or does not know exactly what is going on. They only retain ready data related to productivity. •Managers are only concerned to reach the goals. They forget that the most important is the team work.
3- In your opinion, is there a good relationship between the workers, regardless of their positions?	<ul style="list-style-type: none"> •In our environment all live together in such a way that there is no commitment that would hurt others. We have a good relationship and this is an incentive in our daily work. •People respect each other in the best possible way. •There are no conflicts normallly and only some few isolated conflicts. •In many moments, positions lead to a differentiated treatment according to hierarchy.
4-Is the company open to receive and accept criticisms, opinions and contributions from workers?	<ul style="list-style-type: none"> •Since you have enough freedom to talk to your boss I believe that the company is open to any possible situation. Every one should say his opinion in the best possible way. •This channel does not exist. •No opinion.
5- Would you like a research about corporate atmosphere in your company? (In case there already has one research	<ul style="list-style-type: none"> •It depends on the politics of the company. So, each organization has to decide if it has to make a research about organizational climate or not. •It is basic to solve problems.

please do not consider this item).	•In order they understand real needs.
6- Do you believe that your company needs improvements in the corporate atmosphere climate process?	•• All will be lined up with the same information.
	•• Yes, because many people still do not feel encouraged to seek real growth
	•• The company seems only to care to what it looks and not what it really is. This type of research is good for improving the environment.
	•It is necessary to apply some improvements first so that during first research answers could be done in a reasonable way.
7- Do you believe that your company needs improvements in the corporate atmosphere planning?	•I can't see this process.
	•I do believe yes.
	•All planning should be done in the best possible way and should be clear and objective. It cannot be limited nor hide future reality. It has to be well planned and be ready to be applied in any situation, positive or negative. It really as to be applied so that employees would be able to agree or not with it,
8- Does corporate atmosphere affect your productivity or motivation?	•Yes, because this is what will be considered as strength need for daily work.
	•Yes, because it causes demotivation.
	•Yes, if we work on a nice environment we develop our duties with more efficiency.
	•All that is related to a peaceful and harmonious scenario may affect the performance in any activity.
9- How do the workers see the ambience at work?	•I believe that each department has its own climate and there is not only one for the company in general.
	•As something saturated.
	•A place of too much pressure sometimes.
	•They see it as a serious place that must be respected, a place where each one offers the best, always thinking positively and doing the best. This should be the motto to all employees about this place that may offer better days to them all.
10- How may the corporate atmosphere better support the employees. Why?	• It may stimulate people during developing their duties.
	•oThis is related to each employee's interest since all should have the same perception as the company's.
	•If we work in a place with good atmosphere, with good people, I believe that performance will be better and as na example I mention the doubts we have in the day by day work.If you are clear in an efficient answer you may be sure that when you have another doubt you will be able to question anyone with no fear.
	•Yes. An ambience better than motivation.
11- Which suggestions would you recommend to improve the corporate atmosphere in your company?	•Motivation –with a campaign and a better distribution of information.
	•Communication is very important and will make evident the company's proposal.

(communication, motivation, satisfaction, etc...)	<ul style="list-style-type: none"> • All the ones mentioned are positive points for a successful team and consequently for the company. A favorable climate would make the difference.
	<ul style="list-style-type: none"> • To create efficient means of communication between employees.
12- Which is the importance of corporate atmosphere at this moment?	<ul style="list-style-type: none"> • To gather people to reach common objective.
	<ul style="list-style-type: none"> • It is important to keep the employee motivated with a better performance.
	<ul style="list-style-type: none"> • During moments of crisis it is important that the climate is lined up because small conflicts or isolated personal problems may make the employees feel uncomfortable.
	<ul style="list-style-type: none"> • The importance of corporate atmosphere at this moment is that it will prove to workers that being positive may generate good results and open a promising future to those that are devoted to company.

Source : Prepared by author

Based on the above information a focused analysis will be performed primarily on the responses of the same group followed by a comparison between the groups leading then to a better understanding about the thought of each group and how they interact.

According to some managers the company's communication is poor, causing problems between departments, different functions and specially with final customer, who is the student. However, the communication failure can be understood because it begins with top management that make decisions without anyone's knowledge in the whole process of general organization. Everyone agrees that the corporate atmosphere survey would be a differential factor that could improve and processes, productivity, quality, etc.

Employees also believe that the main point to be improved is communication, but they disagree on how managers have to do with it, believing that they do not pass the information or simply retain information. The corporate atmosphere survey in most of the responses was and identified as a possible solution to the problem of lack of communication.

For students and employees communication is the main focus of the majority of answers, but they are divided on the issue. All believe many aspects have to be improved. All agree that corporate atmosphere can improve the productivity and efficiency of the organization.

Therefore we can say that with all the foregoing the organization of communication in every way could be improved with the implementation of one or more channels of communication through which all employees could have access to new information, changes in procedures, etc., generating a huge optimization of processes, mainly internal environment and specially the final results with the students. One of the major complaints on their part is that there are various types of information for the same procedure and it raises doubts, disagreements, friction, stress and demotivation causing the corporate atmosphere interfere negatively. The internal environment is heavy and this may cause people to end up discouraged, affecting productivity negatively as well as the entry of new employees.

However the organization's culture does not allow such changes because as seen in the responses of managers, those responsible for making decisions do not seek to hear the opinion of those who run the process. So (COSTACURTA, 2010; BISPO, 2006) argues that the corporate atmosphere survey is used to detect and resolve problems such as interviews. It seems to be very difficult to count on changes on the part of directors, because the application of corporate atmosphere survey requires employees with great insight on how to identify and confront the truth of information on a daily basis.

In the possibility of cultural change and implementation of corporate atmosphere survey, as the models presented in this article, along with the recruitment or relocation of any employee with good perception of the internal environment, this will generate an extremely positive factor. It is mainly highlighted the increase in productivity by providing an internal working environment with

optimal quality. The research found that the OC directly affects the quality of the service by the employee and can be a determining factor in the quality of the final service that is provided to the students. Other factors that improve with OC are improvements in processes, communication, internal environment, motivation, final quality, generating a different characteristic over competitors. Efficient and effective teams as well as a more detailed planning level would even identify outbreaks demotivation or process of divergence.

However, the quality of answers require attention and it is necessary that someone effectively qualified within the organization analyze the data because employees may end up not being sincere for many different reasons that may lead the organization to incorrect data that can disrupt fully planning.

What is the importance of corporate atmosphere research in a high degree educational institution? For the educational institution atmosphere research is a tool that is not used for the planning or even to solve internal problems.

The employees, Bishop, (2006); Costacurta (2003), see it as extremely important to be applied, generating a great advantage in front of competitors, because if it is used correctly the organization will have a wide variety of data on the internal environment, thus enabling adjustments in planning, goals and the optimization of all processes.

Based on the information mentioned in this article it is possible then to say that with the awareness of the employees and the true answers given about the corporate atmosphere survey, combined with qualified professionals that would analyze the data, the educational institutions would then be allowed to implement changes and even generate campaigns on a daily basis, measuring the level of satisfaction of the students, and eliminating most of the problems presented in the interviews.

5. Final Considerations

Through the interviews and the literature review, it became clear that the great paradox for organizations is the difficulty of assuming that part of their performance is dependent on something that eludes them to "control". For the Brazilian high degree educational organizations the corporate atmosphere survey can be considered as something new, and there are few studies about the subject. There are few Brazilian organizations that are trying to develop their own approach, adapted to the reality and Brazilian time. But this study has achieved its objective related to verify, analyze and understand how the planning, processes, and perception of corporate atmosphere (CA) interfere in the relationship between employees and organizations. As seen, the organization's environment suffers direct impact due to the lack of communication that could be pointed with the corporate atmosphere survey. Since the organization does not apply the method it became clear the lack of motivation as well as the decrease in productivity.

As a suggestion for future studies, the expansion of the references should be considered and the analysis of the quantitative nature of the results of multiple case. The analysis of the results and references in this sector would then be extended also for professionals and managers in the area who could have a better understanding on these concepts.

The most significant contribution is of empirical and management nature, because during the research there was the need to have a dedicated tool for WhatsApp, as all employees use this feature. Studies related to the perception of the person who should come along with the improvement would be important while using OC process because if people do not notice the problem at the time it occurs this can lead to major problems. This leads to the way the manager deals with the situation. It should not disrupt the team spirit among the bosses, subordinates and between departments in the organization. There are more consistent theoretical axes with the expressed needs of the organization and the current context of the organization (FLEURY; FLEURY, 2001).

Another key to improve the CA climate, would be the use of Enterprise Resource Planning tool (ERP), which would link all the systems of organization and this would make an optimization process, enabling better communication and consequently quality and speed the return to the student. After implementation the ERP could be developed or a system could be bought that could manage human talent through online courses back or not for activities undertaken and research every six months, with the focus on the human being, in their skills. Based on all the data a classification for promotion and fitness could be proposed because the employee would feel more confident to have a high degree of excellence in every organization. Thus a great indoor environment and is recommended to future employees and also to have satisfied students, in a more human system.

With the two contributions mentioned above that are completely linked to the question of how the CA interferes with productivity. In an internal environment not adequate, not favorable the employee suffers negative influence and will become demotivated with decreased productivity. However, the corporate atmosphere climate survey seeks to correct this and other problems, so if the organization implements the proposals it will have a significant increase in employee productivity. They would work motivated, focused, to feel prestigious and generating a positive competition to demonstrate their quality in order to have growth opportunities. Final quality would also be excellent improving the process in an efficient and effective manner.

Regarding the limitations of the research, the first one is related to the sample size because it is a unique case, not allowing a comparison with other organizations in order to identify the similarities and differences. The effort of research has identified that research on corporate atmosphere in higher educational institutions is underused, making room for future research.

The corporate atmosphere theme in educational institutions is followed by the influence on productivity that has not been studied and used by the researched organization. It is also possible to note that there are few studies focusing on education, and no work specific in São Paulo was found. This leads to the understanding that this study may generate debate of ideas, in order to improve and help how to use a very important and comprehensive tool to be exploited. As seen in the survey OC directly affects the productivity. The organization of quality can lead to miscommunication, etc. It is then possible to use the organizational climate survey in conjunction with the organization's planning. Processes can be regulated and implemented. Thus an optimal internal environment could be reached, good or favorable, with a considerable increase in employee productivity, in addition to a service of great quality and with great advantage in face to competitors.

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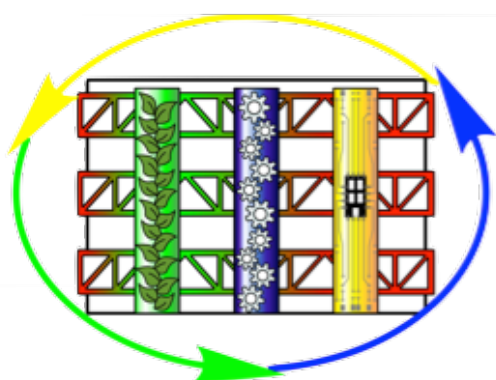
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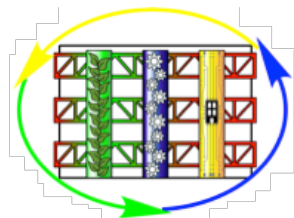
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THE PARTICIPATORY MANAGEMENT AND THE DIRECTOR'S LEADERSHIP ROLE IN VOCATIONAL EDUCATION TECHNIQUE

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RESUMO:

O primeiro indício da educação profissional se dá no século XIX. Desde então, a educação profissional vem sofrendo grandes transformações tanto no âmbito legal quanto no âmbito social. Assim como o perfil do aluno e suas necessidades evoluem e se transformam, o cenário administrativo escolar também participa dessas transformações. O projeto político pedagógico é um dos princípios da Lei n. 9.394/ 1996, artigo 3º, inciso VIII, que propõe a participação dos profissionais da educação na elaboração de um projeto colaborativo. A gestão participativa vem a implementar os aspectos colocados no projeto político pedagógico, salientando a importância da democratização da organização escolar. Nesse contexto a capacidade de liderar pessoas é o que vai definir o sucesso no cumprimento dos objetivos propostos, tendo em vista o papel do diretor como um líder articulador e motivador, que visa o funcionamento da escola dentro de um projeto coletivo com foco na qualidade da educação profissional técnica.

Palavras-Chaves: educação, ensino profissional, gestão participativa e liderança.

ABSTRACT

The first clue of education takes place in the nineteenth century, since vocational education has undergone major changes both in the legal framework and in the social sphere. As well as the profile of the student and their needs evolve and change, the school administrative scenario also participate in these transformations. The political pedagogical project is one of the principles of Law. 9.394/1996, article 3, section VIII, which proposes the participation of education professionals in the development of a collaborative project. Participatory management is to implement the issues raised in the political pedagogical project, stressing the importance of democratization of school organization. In this context the ability to lead people is what will define success in meeting the objectives, given the role of the director as an articulator leader and motivator, aimed at the school run in a collective project focusing on quality technical vocational education.

Keywords: education, vocational education, participatory management and leadership.

INTRODUCTION

Throughout history the technical level of professional education in Brazil, an important factor that collaborates closely with this trajectory draws our attention: The Participative Management at schools. In order to situate about reader the scope of this article, we consider relevant to explain the main points of the history of professional technical education in legal, quote and insert in this scenario what is the Law of Guidelines and Bases of Brazilian Education (LDB) and the National Curriculum Guidelines and the Pedagogical Political Project that permeates the need for involvement of peers towards a common goal, providing quality education and form autonomous individuals, aware of the exercise of citizenship.

Participative management is existing proposal in the Laws of Education Guidelines and Bases (LDB) 1996 in order to meet a demand or school need suggests the participation of faculty, students, staff, families and community to formulate solutions to problems. In this context we have the role of the director, the leader who will be the great facilitator in the conduct of democratic management.

THEORETICAL CONCEPTS

- Brief history of what career technical education by Federal Law 1,076 / 50 and the first Law of Directives and Bases of Education, Law No. 4,024 / 6 and its subsequent amendments. Ramos (2014) dealing on the 2nd degree identity crisis in the 70s, through the LDB no. 5692 of 11 August 1971, which makes it compulsory way, technical and vocational, all curriculum 2nd grade. And Decree No. 2,208/97, which regulates the LDB in Article 30 to 42. As Brian (1993) puts forward changes in the economic scenario and the need for new demands on worker training.

- Locate how the political pedagogical project in Technical Vocational Education and a brief look at the author Ferreira (1975).

- A reflection and discussion on participatory management through the eyes of Libâneo (2001), Gold (2012) Luck (2009) and Dalcorso (2011) and how leadership is closely linked to the role of the school director through the Marques considerations (2010), Bergamini (1994), Hampton (1990) and Iannini (2000), noting the leadership model recommended by practitioners and theorists of the area and its implementation and dissemination in business culture in order to deal with this issue in the school reality.

METHOD

The research method used in this work is the Bibliographical Research through secondary data from various sources such as books, articles on the internet and Federal Laws.

RESULTS AND DISCUSSIONS

1. EDUCATION

1.1 Historical context of Professional Education

In the Imperial period, around the nineteenth century, the question of professional education comes up with the high schools and the Lancaster method, in which trained student teaches a group of ten students under the supervision of an inspector. The first indications of the origin of professional education, were in 1809 with the creation of the Colleges of factories. Despite many changes in

society, because the granting of the first Constitution of Brazil in 1824, in which it was established the "primary and free education to all citizens," the Imperial power still had a vision of a school for the elite.

The proclamation of the Republic and the Constitution of 1891, which maintained the ban vote of illiterates, made there a certain enthusiasm for education and also a certain hope for the Brazilian people. The second Republic and the revolution of 30, meant that Brazil entered definitely into the capitalist world production, making the specialized labor supplied by the factories.

In the 40s, Senai (1942) and Senac (1946) were created with the aim of training professionals for industry and trade markets. Technical Schools were also created in this period from the transformation of Arts and Crafts School.

In the 50s, Federal Law No. 1,076 / 50 was enacted, allowing the student to conclude professional education and continue to study at higher levels, since he passed through the examinations of disciplines that had not been routed, proving to have the knowledge necessary to continue. Around this time, during Juscelino Kubitschek's government, there was an increase in qualified demand, specially in the automotive industries. At the end of 1969 with the Decree on October 6, the Paula Souza Center started its activities in professional education.

With the military regime (1964-1985), many educators were "forbidden" to express their opinions, on the grounds of "national security." These elements deeply marked the culture and education in the country. After the dictatorship, with the "Direct Elections Now" and the presidential elections in the late 80s and early 90s, the government of Fernando Henrique Cardoso (1995/2003), began an educational path, particularly focused on professional education in full compliance with the demands and appeals of industries. During this period the Federal Constitution of 1988 in its Chapter III, Section I, Article 205, included education as: "[...] right of all and duty of the State and the family, to be promoted and encouraged with the cooperation of society, aiming at the full development of the person, his preparation for the exercise of citizenship and his **qualification for work**." (Emphasis added)

Already today, besides programs that certify professional training and raising of education, such as the National Professional Education Program integrated to Basic Education to Adults and Young People (PROEJA), regulated by Presidential Decree 5840 2006, during the government of Luis Inacio Lula da Silva and PRONATEC (National Program for Access to Technical Education and Employment) established by Law 12,513 of 2011, during current president Dilma Rouseff's government, new vocational education policies have been implemented, especially with reviews of the performance of students and teachers, through their skills and competencies acquired during training. It is noticed that the update and technical training has been a watershed for a replacement in the market, mainly in Brazil, where several institutes publish every month negative indices of economic data that are disappointing.

1.2 The Vocational Education Law of Directives and Bases of Brazilian Education (LDB)

In the 60s, the first Law of Directives and Bases of Education, Law No. 4,024 / 61, was enacted, whose main objective was to equate the teaching modalities, which are now equivalent via continued higher level studies - the first time the law recognizes the full equivalence between professional courses and diagnostic for further study purposes. It was a new challenge, for the first time professional education appeared separated from the Basic Education. With this separation, other possibilities could be considered in relation to the learning process, as it has become more attractive and advantageous for young people.

In the 70s, the LDB no. 5692 of 11 August 1971, transforms, in a compulsory way, all high school curriculum into technical and professional. It is the universal and compulsory professionalization of second grade, current High school.

According to RAMOS (2014):

The lack of investment consistent with the real needs of professional qualifications, together with the curricular disarticulation, compromised the development of many courses. Given these circumstances, the so called teaching Grade 2 offered no longer guarantees to the solid foundation of general knowledge that always characterized professional education, consolidating an authentic identity crisis.

In the 80s, Law No. 7044, makes changes in the 1971 LDB, concerning the professionalization of the second degree; "Preparation for work in 2nd grade, may give rise to professional qualification, at the discretion of the educational establishment". (Art. 4 § 2). The changes that occurred from 1996 through laws and decrees, established important changes to the management, financing, access, evaluation, the curriculum and teaching methods.

The LDB No. 9394 of 1996 in its Article 3 sets out the principles and purposes of national education. Professional education has equal conditions for access and permanence in school, freedom of learning and teaching and the diversity of educational concepts.

1.3 The National Curriculum Guidelines and Professional Education

With this new market demand, from the 90s, the integrated technical education model to high school, began to show signs of wear and tear in the State of São Paulo, causing several kinds of problems, especially in the equipment, curriculum and manpower. Professional education is for those who need to prepare to carry out a professional activity. The new maximum is that the development of professional skills allow the citizen-worker to face and respond to professional challenges with creativity, autonomy, ethics and effectiveness.

Decree No. 2,208 / 97, regulated the LDB in Article 30-42 (Chapter III of Title V), where the goals of education were:

- training mid-level technicians and technologists in a higher level for the different sectors of the economy;
- specialize and improve the workers in their technological knowledge;
- qualify, requalify and train young people and adults with any level of education for their integration and better performance in work performance.

This new definition of Professional Education provided the following levels, through Article 3:

I. Basic: for the qualification, requalification and reprofessionalization work, regardless of previous education;

II. Technical: intended to provide professional qualification to enrolled students or high school graduates;

III. Technology: corresponds to higher education courses in technology, aimed at the secondary and technical school graduates.

Professional education is associated in most countries to strategies for economic development in the form of preparation and formation of "human capital". In Brazil, the training does not imply 100% guaranteed employment, but this training favors much the highlight in a highly competitive

market, especially with the numbers and recent news. There are several studies regarding to this aspects whose the results indicate that about 70% to 80% of the students who attend the Technical Education have achieved excellent placements in various segments and major companies in the sector.

BRIAN (1993) mentions:

Training of employees with ability to innovate, to identify problems, find their solutions and be able to implement them is thus an imperative for economic development, in addition to the fact of being a necessary condition for building a democratic society. These worker training demands are a challenge for educators in the transformation of curricula and teaching methodologies in place in schools. (BRIAN, 1993, p. 55, emphasis added).

The formation of these citizens to the labor market is known as *laborabilidade* as it transforms competence in work, ie "[...] is the ability to mobilize, articulate and put into action values, knowledge and skills necessary for the efficient performance and effective activities required by the nature of the work" (Resolution CNE / CEB No. 04/99, Article 6).

Professional education faces in this century some challenges that must be overcome in order to redesign their social function. Principals, teachers, students, parents, communities (meaning stakeholders) and etc. are part of the dynamic parts of these social relations that permeate the social function of school as agent of socialization, training and integration of the individual in society for the exercise of citizenship in an ethical manner and productive.

1.4 Pedagogic Political Project (PPP)

The participation of professionals of education in the preparation of the Pedagogic Political Project is one of the principles of Law. 9.394 / 1996, Article 3, section VIII. There are many schools and various types of managers, each working with their skills, to define strategic actions in harmony with the Pedagogic Political Project (PPP). Thus, it is important to remember that to make the school an effective space for formation of autonomous individuals, aware of citizenship, it is necessary to develop a focused work on democratic management.

According to Ferreira (1975 p.1.144):

In the etymological sense of the term, project comes from *projectu* Latin past participle of the verb *projicere*, which means throw forward. Plan, intention, purpose. Company, enterprise. Working Draft of Law no. 18.

To Lopes (2015) :

PPP is a planning and evaluation tool that you and all members of the management and teaching staff should consult at any decision making. So if your school project is shelved, outdated or incomplete, it is time to mobilize efforts to rescue it and rethink it. "The PPP becomes a living and efficient document in that it serves as a parameter to discuss references, experiences and actions of short, medium and long term [...]"

In the construction of PPP it is advisable to use teamwork, thus it will be possible to make the most of the process and achieve the goals. Like the ants that come together in community to save a member of a risk, the school must use the knowledge and the need for all members to model the PPP in a format independent and aligned with the characteristics of the region. The modern educational institution, needs to be adapted to the reality of the participants to provide an adequate education to the needs of its stakeholders. Some aspects therefore are relevant:

- PPP is not directed exclusively to managers and teachers of the school,

- You can engage students, parents and community in the PPP construction process,
- The PPP explicits values, mission, vision, beliefs and school pedagogical principles

1.5. Participative Management

Before we point about what is Participative Management by 1996 LDB, it is worth considering what Libâneo (2001), mentions on two approaches regarding the Organization and School Management concepts. First, he considers a scientific and rational approach in which the school operates in a rational way, with specific objectives, planning, controlling and evaluating their effectiveness. This model has just intensified the clear operation of its organizational structure: the role of hierarchy, chart positions, centralized and autocratic decisions (top-down), minimum of collective work and etc. This is a model that ends up being used in many schools.

In the second approach, now under a critical aspect and socio-political nature, in the case of a model where the school organization is not only an element to be observed, but a system that combines people, a social construction by teachers, students, parents, staff and the local community, the characteristic of this model is not its role in the market, but its role in the public interest, and it is this approach that we want to highlight, discuss and explain as a democratic management model.

It defends a collective construction management, so once it has been decided collectively it must be clear that participatory management does not mean everyone will do everything, but that each one has its role and its inherent responsibility.

A theoretical current that understands the school organization and culture, see defending democratic participatory model, pointing out that a school is not set only in relation to their objectivity and organizational structure, but in the human capital contribution, ie, built by his own members.

Dourado (2012), also seeks the administration's history and its current as a counterpoint between company and school organization and from these concepts to better understand the school and its social function as well as highlighting their specific features to differentiate the school management of business administration. So he suggests that the school administration should be distinguished from a business management. Would think the school management as an overview and a combination of organizational structure and culture / intellectual capital?

The implementation of a participatory management is existing proposal in the Laws of Education Guidelines and Bases (LDB) 1996, stating that this is one of the fastest ways to meet the demands of the school community, since it suggests the participation of faculty, students, staff, families and community to formulate solutions to problems.

The school environment, as a social institution is organized to deal with specifics that relate to human development through social and educational policy achievements. Lück (2009) states that: "[...] education is a collaborative social process that requires the participation of all the school's internal community and the parents and society in general. That joint and organized participation is resulting in the quality of education for all, the principle of democratization of education. "

In order this happens, a lot of dialogue and interaction is required from the team, and the educational manager is the cornerstone of the collaboration network to be created, demonstrating safety in his goals and in his of strategies and guidelines.

According to DALCORSO (2011):

[...] The manager will have to divide his roles and responsibilities, that is, to decentralize his actions, share the routine responsibilities of making the work more

productive. For that, this professional must break the paradigm of "loss of power" adopting the concept of "participatory management". (Emphasis added)

In the management team of a school, the director plays a very important role because it is up to him to seek theoretical foundation to train and the knowledge to resolve conflicts and challenges of day-to-day in a competent and productive way.

2. LEADERSHIP

2.1 The Democratic Leadership

Before we reflect on what is leadership and if democracy is closely linked or not to leadership, it is interesting to notice how Lück, op. cit. (2009), mentions some kinds of some power of the director in the democratic and participative management. In the 8 items, in which she talks about the school director's profile, the word leadership is mentioned three times. Based on this quote, it would leadership be a primary responsibility for the director? Are our school managers prepared to exercise leadership skills in the context described above? The role of a school manager is to do the job seeking community, creating constructive confrontation terms of ideas, playing with flexibility and courage to his function as manager of people and processes at the same time.

The school principal representing the school community, teachers, parents, students and staff, as Vasconcelos (2004), is the living expression of collectively assumed project.

According to Severino (1992, cited in DALCORSO, op. Cit., P.56), "the role of the director is not limited to a purely bureaucratic and administrative role, but an articulator, coordinator, sharer, that although suppose administrative, radically linked to teaching. " Basically he is the one who makes the school work within a collective project and focusing on the quality of education.

2.2 Definition of Leadership

Nowadays the theme of leadership has been discussed among well known professionals in major conferences and even within the school management. The ability to lead people and teams especially, is what will define success in meeting the objectives. The qualities of this leadership are recognized as a key element in management. A good administrator or manager should have this ability as guide.

According to MARQUES (2010):

While on one hand the leader is encouraged to improve the relationship between his followers. On the other hand it is relentlessly charged by the short-term results. Divided into productivity pressure imposed by hierarchical structure of organizations and the search for his and his followers personal satisfaction, the leader is increasingly disoriented, unable to please neither one nor the other.

Leadership is a process of influence, able to manage a group of people, making this group to generate positive results and turn into a team and making this team reach the proposed and common goals. According to Bergamini (1994, p. 88) the concept of leadership may have variations among the authors or even within organizations, "it appears that most authors conceptualizes leadership as influence of an individual process on another individual or group, with the purpose of achieving goals in a given situation. "

2.2.1 Chief versus Leader

Due to constant global changes and the coming of years, organizations have been forced to restructure and to pursue the so-called "managerial excellence" and the vision of the "boss", that is the one who exercises authority and who leads, has given place to the "leader", i.e that is the one who guides, leads, persuades and is recognized by the team as the one that can lead to success.

Until the 60s, the good boss was the one who controlled his personnel with full control of all employees within the company. However, companies since the 70's, began to need more than intellectual contributions on the part of the employees, because the head was totally centralized and any other talent that perhaps could appear was seen as a threat. Already in the late 80s, with the increasing competition and economic liberalization, especially in Brazil, the need for the proactive staff companies became a real need. The role of centralizer manager gave way to the disseminator, now called leader, managing to extract the most of the skills of each team member in a more participatory way. Below some differences between chief visions versus leader are listed:

Table 1: Difference between a boss and a leader

Boss	Leader
Orders	Asks
Imposes his point of view	Open to suggestions (Empowerment ¹)
Controls activities	Delegates functions
Paternalist (protect some and chase others)	Pays attentions to every worker. (knows how to explore abilities)
Authoritarian	Democratic
Generates a negative climate of insecurity and menace	Positive conquer of credibility through mutual admiration and respect
Informs	Shares information

Source: IANNINI(2000), page.24. Adapted by the authors.

The fact that the leadership is directly linked to people, causes the work to be developed according to the proposed objectives and shared by the leader, and the relationship of trust between those involved makes the aspects of authority are a "facilitator".

The leader is characterized by a sharp drop for the responsibility and completion of tasks, vigor and persistence in achieving goals, entrepreneurial spirit ... Ability to **influence the behavior of others and the ability to structure social interaction systems for objective purposes** (HAMPTON 1990, p.210, emphasis added).

Today, leaders are not concerned only with their function, but also with the development and succession of new leaders.

⁴Paulo Freire, one of the leading Brazilian educators, was the first to translate the term "empowerment" for the Portuguese. Empowerment is "an individual's ability hold by itself, the changes needed to evolve and strengthen."¹

2.3 Types of Leaders

The types of leadership are theories that study the different behaviors of the leader towards their subordinates, the ways in which the leader guides his attitude and conduct. This approach refers to the leader's attitudes, that is, his behavior style to lead.

According to Senac (2007), the more styles a leader has, the better the performance of the team. But for Sarfati (2010, p. 70), "[...] the traits of a leader that are necessary and effective in a group or situation are not always the same as another leader in different situation." The types of leaders are, as shown on Table 02:

Table 02: Six Types of Leaders

Estilos:	Coercivo	Confiável	Agregador	Democrático	Agressivo	Conselheiro
Os modos de ação dos líderes:	Exige imediata obediência..	Mobiliza pessoas em direção a uma visão.	Cria harmonia e constrói laços afetivos.	Forja consenso através da participação.	Estabelece altos padrões de desempenho.	Desenvolve pessoas para o futuro.
O estilo em uma frase:	"Faça o que digo".	"Venha comigo."	"As pessoas vêm primeiro."	"O que você pensa?"	"Faça como eu faço, agora."	"Tente isto."
Implícita competência da Inteligência Emocional:	Conduzir à execução, iniciativa autocontrole.	Autoconfiança, empatia, mudança estimulante.	Empatia, construção de relacionamentos, comunicação.	Colaboração, liderança de equipe, comunicação.	Consciência, condu à execução, iniciativa.	Desenvolver os outros, empatia, autoconsciência.
Quando os estilos funcionam melhor:	Em uma crise, no pontapé inicial de uma crise ou com problemas de colaboradores.	Quando as mudanças requerem nova visão ou quando é necessária uma clara direção.	Na cura de rupturas em uma equipe ou na motivação de pessoas durante circunstâncias estressantes.	Na consolidação ou no consenso, ou para obter contribuição de colaboradores de valor.	Na obtenção de resultados de uma equipe altamente motivada e competente.	Na ajuda de um colaborador a melhorar o desempenho ou desenvolver força em longo prazo.
Impacto abrangente no Clima:	Negativo	Muito fortemente positivo	Positivo	Positivo	Negativo	Positivo

Source : SENAC,(2007)

In the type of leaders exposed on table 02, there are less effective styles and other not only effective but also of key importance to influence and motivate the team as a whole.

3. FINAL CONSIDERATIONS

We are far from wanting to end the subject, as well as to reach a specific and unique conclusion. The proposal was to go deep and to reflect about the object of study in order to build a grounded point of view in historical moments, changes and relevant facts. We also seek to illustrate and compare what authors report and opine on the subject proposed as participative management and democratic leadership.

We know that professional education in Brazil led to the qualification of several students, especially with the Laws, decrees and ordinances put into practice, particularly through Federal Law No. 9.394 / 96 and Decree 2.208 / 97.

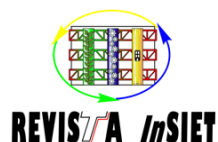
In this new scenario, transformation, new requirements, new technologies and speed of information, educational leaders need to elect as priority the quality of learning, promoting actions that

can mitigate or overcome the problems related to the development of the teaching-learning process, ie , focusing on the teacher / student relationship and actions in the classroom. But it is important to emphasize that the participation of all who are around this core, needs to be effective to strengthen what is planted by the teacher, thus resulting in emotional, psychological and social benefits for students and the entire school community.

This scenario can only be established and consolidated if the school administrators know to perform the management of people efficiently and effectively, working with motivation, empowerment of talent, performing the alignment of these aspects of leadership with administrative and pedagogical strategic definitions of school. For Rabbit (2008, p.111): leadership is "[...] defined as a characteristic of individuals who always make the best choices." In this context the director must recognize the role and importance of leadership to achieve common goals, influencing and motivating all their peers.

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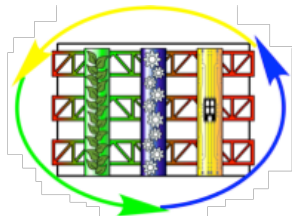
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REUSING TO LIVE BETTER

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RESUMO:

Com o acentuado desenvolvimento tecnológico, industrial e populacional, as atividades humanas estão cada vez mais intensas, resultando na produção de resíduos sólidos que são lançados no meio, originando a poluição. Esta última pode se dar na forma de poluição do ar, água e solo. O presente artigo tem como objetivo demonstrar que a reutilização de resíduos de pneus desgastados, o pó de borracha, se justifica como viável para um reaproveitamento sustentável e benéfico ao meio ambiente, já que ao ser retirado das vias, não chega aos rios e, conseqüentemente, aos solos, contaminando e poluindo. Além disso, será demonstrado que esse reaproveitamento pode ser feito de uma maneira não agressiva ao meio, uma vez que pode utilizar energia limpa, como por exemplo, energia eólica, para autoabastecimento do processo de obtenção do pó de borracha puro, que depois poderá ser utilizado na produção de asfalto “ecológico”, além da utilização de água de reuso.

Palavras-Chaves: pó de borracha, energia limpa, asfalto, contaminação, água.

ABSTRACT

Considering the strong technological and industrial development as well as the level of population growth, human activities are becoming more intense, resulting in the production of solid waste, which is released in the environment generating pollution. This pollution may occur in the air, water and soil. This article aims to demonstrate that the re-use of waste tires, in the form of crumb rubber specifically, is feasible for a sustainable and adequate re-use to environment, since when old tires are collected they will not reach rivers and consequently soil, avoiding their contamination and pollution. Furthermore, it will be demonstrated that this can be done on a non-aggressive way to the environment since clean power can be applied such as wind power for self-supply in the process of obtaining pure crumb rubber, which could be applied in the production of ‘ecological’ asphalt, besides the re-use of water.

Keywords: crumb rubber, clean energy, asphalt, pollution, water.

1. Introduction

Old and worn tires are becoming more and more a strong menace to nature. In Brazil, CONAMA Resolution no. 258 issued by Nacional Council for Environment has determined three major responsibilities on the part of industries that manufacture tires: collect, transportation and discharge.

Some processes and technologies will be presented in this article with the purpose of recycling and re-using in asphalt the crumb rubber left on the roads by tires. Main objective is to show that the re-use of crumb rubber may be possible to minimize the impact on environment. A Project will then be elaborated based on separation of mixtures in order to obtain pure material.

The need to remove this crumb was generated by the results of the action of the crumb residues in environment such as soil and water contamination.

High pressure water flow applied to remove the substance and other components present in asphalt, leading them to tanks in which the solid-liquid mix will be filtered allowing pure water to be re-used in the process is the operational suggestion described in the project. The solid mixture of crumb rubber and components will be released for a second tank where it will pass through a process of crystallization in order to obtain pure crumb.

During the elaboration of this project it was necessary to experiment, to study and to research possible procedures to remove the contaminants of the roads and determine how the crumb rubber can be separated from the other solid components. Some of the following procedures were found as being possibly applied: simple filtration, decantation, re-crystallization and vacuum filtration.

Nevertheless, as mentioned before, the removal of asphalt residues, mainly the crumb rubber, is of extreme importance for environment since they can be lead by the water rain to rivers and soils, contaminating them due to their toxicity. Besides this, these residues remain on the roads and pavements in traffic lines being taken to inside homes through shoes polluting home and commercial surroundings. This study is then justified, by the fact that there are no services with above described characteristics, besides the lack of knowledge about crumb rubber and its consequences on environment.

2. Development of Proposal

2.1. Rubber residues and the problems

According to Pierozan (2007), Brazilian tire production reached almost 55 million of units. Part of this amount was exported and the other applied in vehicles in the Brazil. The tires that become old are discharged in landfills (LIXÕES), rivers and roads. Resolution 258 has determined destination for these tires in order to reduce impact on environment, with responsibilities not only to producers but also to importers in the cycle of merchandise prohibiting inappropriate discharge and also obliging producers to provide a destination adequately correct to environment, allowing then better re-use.

A tire is composed basically of rubber, carbon black, oil and ashes. There are some problems with these residues such as collect, classification (to keep or improve characteristics of each one), separation (eliminate undesirable compounds) and grinding (generate re-usable products). It was not yet possible to evaluate real damages caused by rubber residues, but we can assure that they can be re-used, according to Pierozan (2007).

A small portion of residues can be benefited together with asphalt. But one of major disadvantages is the variety of components in the non-uniform composition of mixture of these residues.

2.2. Re-using residues

In order to minimize the impact of the residues present in the rubber, it is necessary to take into consideration some processes such as the origin control to minimize the generation of residues; to get rid off residues placing them in specific areas; to generate products that can be re-used; to generate energy; and to improve qualities of certain products. One of these forms of re-utilization will be focused in this article : the

improvement of asphalt properties. Crumb rubber that is left on the roads as a result of tires circulation will be studied.

Asphalt is a residue of petroleum distillation. It can be considered a kind of cement incorporated to a mixture of stone and metal. In this process it is necessary to heat the crumb rubber together with asphalt, generating an elastic substance, to which solvent will be added and then this mixture will be spread all over the road. This method was chosen because it increases the deformation degree and asphalt stability in high temperatures besides the fact that it will increase resistance to fatigue, traction, reduces noises, cost, time of manufacturing, thermal susceptibility and risk of thermal susceptibility and risk of cracking in low temperatures.

It will then become economically more feasible, according to Ceratti (2011). It is also remarkable the fact that the addition of crumb rubber to asphalt reduces the need of petroleum, since this is a non-renewable source of energy.

This "ecological asphalt", however, may cost 50% more than common asphalt. This difference is compensated by the life and quantity of material applied.

2.3. Methodological procedures

Some national academic studies will be applied in order to develop this project as well as some articles from authors that are related to different types of tires, asphalt, process of separation of mixtures, wind energy (?) as well as to what has been written specifically about the re-use and recycling of rubber tires.

Some researches will also be made aiming to show up problems that these residues directly cause to environment. Some experiences with filter processes will also be taken into consideration.

2.4. Results

As already mentioned crumb rubber will be applied to improve asphalt qualities and consequently remove it from the roads, with the optimization of the impact of this residue in environment.

A project to collect the residues that cause pollution will then be proposed from the high pressure re-used water flow to collectors. This procedure will be guided through water separators and sluices gates that will be connected to the central station. The central station will have a filter in first plan to separate the solid-liquid mixture guiding the pure liquid part to be re-used in the process and the solid part to a second tank in which the re-crystallization process will occur and where there is a high-temperature rubber solvent, applied by Petrobrás. Thus, dissolved crumb rubber may be separated from other components. In order to obtain desirable effect, this mixture of solid residues and solvents will have to be separated slowly, generating bigger particles of crumb rubber, and reaching then pure state.

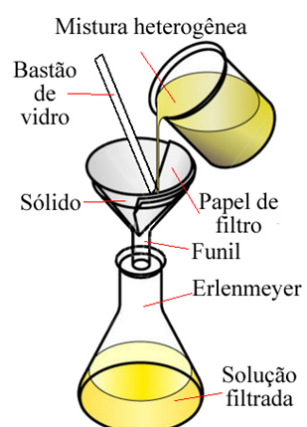


Figure 1. Simple filtration

Figure 2. Hot filtration – removal of insoluble impurity.

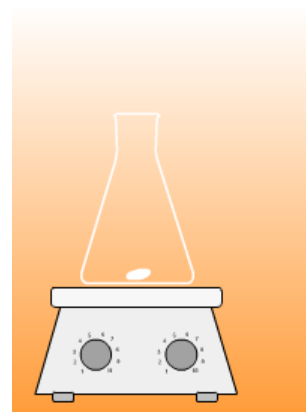


Figure 3. Hot filtration – removal of insoluble impurity

Figure 4. Slow cooling - formation of pure crystals.



For the operation of the central collection and separation of crumb rubber, wind propellers are implanted in the openings of the bridges, which may be of various sizes, with the larger the propeller, the greater the power generation. A propeller with a diameter greater than 46m can generate more than 1MW, and 1 MW can power 900 homes of 3 people each, not counting the electric heating.

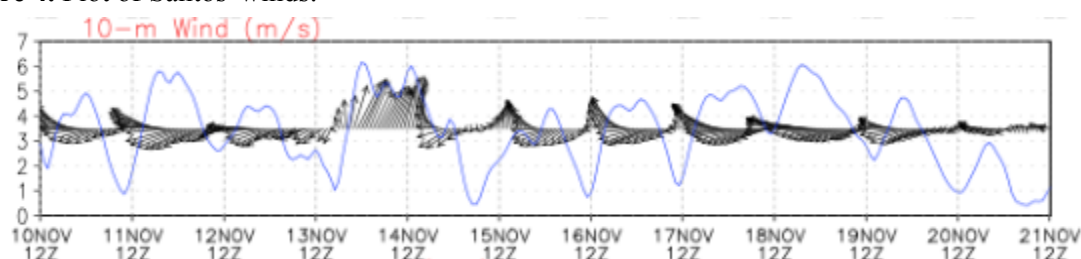
Table 1. Diameter x power of the blades

	Diameter of the blades	Power values
Small Power	<12 m	< 40 kW
Medium Power	12 a 45 m	40kW a 1 MW (qq 100 kW)
Great Power	> 46 m	> 1 MW

Source-LEE (2014)

Applying the propellers located on bridges Sea Saws for example, have enough speed to activate them as you need at least 2.5 m / s to 4 m / s to be activated.

Compared to the saw Santos where we analyze the winds vary around 7 m / s, they can be inserted several small propellers that provide energy with low winds.

Figure 4. Plot of Santos' winds.

3 Final Considerations

The discovery of tires has made easier not only human beings transportation as well as charges and at the same time, the increase of the use of tires increased the manufacture causing then a new solid residue with a time of de-composition not yet determined. Society became concerned about environment that can be badly affected by this residue that is thrown in non-adequate sites.

In order to solve this question, some companies have started and developed collect programs including adequate destination of tires to prove that the re-use of material is an environmental and economic solution.

For this reason, this article has been written aiming to show the real possibility of re-using the crumb rubber in asphalt, as well as the collect of this residue on the roads to reduce the impacts to environment. To obtain the proposed goals, some reasearches have been made in academic studies and articles to gater more data about crumb rubber, the aeolic mixture, water re-use, separation processes for mixtures and the damages that the mentionned residue may cause to environment.

The growing industrialization and development over time, brought greater concern for the environment. Today, one can identify the industrial processes need to be designed based on three branches: reduction of fossil fuels, use of renewable energetic sources and energy efficiency. Therefore, wind energy is used as energy source for obtaining the powder.

It can also be seen by the survey, the deposition of rubber on the roads powder is an issue of utmost importance, because that, if taken by rainwater to the rivers, reaches the ground, contaminating it.

Another major concern raised by this study was the pollution of soil, which has been increasingly an object of attention, both aspects of public health, and environmental. Therefore it was thought in the removal of waste rubber and components of the track, to avoid directing the same to the soil and rivers and thereby decrease the pollution of the cleaning and provide the Shooting pathways. It was found that there is great ignorance on the part of people in relation to the release of the rubber powder by worn tires, as well as their damage to the environment. Therefore, it was decided to implement the withdrawal project of this residue of the tracks, through reuse of water jets at high pressure that will direct the tanks for filtration and obtaining pure matter, to be reused in a sustainable way in the production of asphalts ecological.

Among the results there is the reduction of contamination of rivers, soil and the environment, as well as a sustainable process without electricity and without water costs, and also the improvement of asphalt quality, as the blending of grants powder greater strength, durability, adherence and ductility, and also, cost reduction if considering durability and maintenance, besides the reduction of the the amount of oil used.

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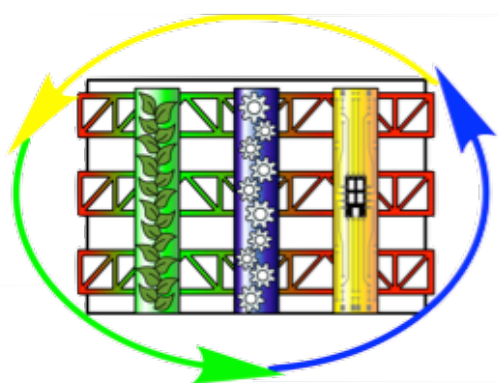
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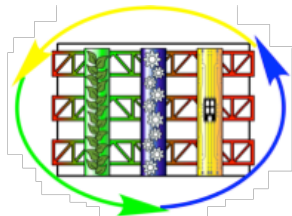
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**ENTENDER E INFLUENCIAR DE FORMA EFICAZ O PROCESSO DE
TOMADA DE DECISÃO MELHORA AS CHANCES DE SUCESSO DA
IMPLANTAÇÃO DE UMA INOVAÇÃO**

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Introdução

Inovações geralmente fazem parte do planejamento estratégico das organizações. Mesmo assim não há garantias de que sejam bem implantadas, pois muitas organizações falham ao executar suas estratégias. Estatísticas, segundo Deloitte (2011), apontam até 90% de fracasso. Os motivos são os mais distintos, desde foco equivocado da estratégia, falta de envolvimento ou motivação das equipes ou até mesmo falhas de comunicação. Fatores de natureza humana muitas vezes são deixados de lado para que toda energia seja canalizada para os aspectos técnicos. Isso pode ser demonstrado pelo fato de ser comum descrever inúmeros desafios e soluções de cunho técnico em um projeto, porém dificilmente são apresentados relatos dos problemas “humanos” enfrentados.

É preciso entender o papel central que os fatores de natureza humana possuem em projetos corporativos, sendo muitas vezes a parte mais difícil de ser mudada ao executar uma estratégia, devido a barreiras culturais, experiência prévia (que leva a repetir as mesmas decisões tomadas no passado) ou até mesmo por falta de conhecimento, envolvimento ou motivação de quem participa do processo de mudança. A falta deste entendimento faz com que projetos de inovações tecnicamente bem resolvidos fiquem sujeitos ao fracasso. Conhecer melhor o processo de tomada de decisão e saber em que momento e de que forma este pode ser influenciado pode ser a chave para o sucesso da “venda” de uma nova ideia, para o sucesso da implantação de uma inovação.

Implantação de uma inovação

As inovações possuem importância estratégica e estão sempre presentes em ambientes de trabalho em transformação. Porém muitas organizações falham ao implantá-las, por diversos motivos, muitas vezes devido a toda energia ser canalizada para resolver os aspectos técnicos, negligenciando os aspectos humanos. Segundo Klein; Knight (2005), muitas equipes e organizações não conseguem perceber os benefícios esperados de inovações que venham a adotar e desta maneira não “vendem” internamente o projeto de forma adequada. Ou então preparam-se mal ou introduzem a inovação de forma ou em momentos equivocados. Ocorre que a causa principal não é o fracasso da inovação, mas o fracasso da implantação, na qual não se consegue uso consistente e comprometido da inovação pelos participantes do processo, que muitas vezes não a “compram” internamente. Sem uma necessidade clara, dificilmente adota-se uma inovação. Ou então, caso exista uma necessidade, porém esta já possua uma solução preconcebida antes que a inovação seja apresentada, dificilmente haverá mudança. Por isso é necessário conhecer o processo de tomada de decisão, para que seja possível influenciá-lo em cada um de suas etapas e aumentar as chances de sucesso da implantação de uma inovação.

Ao pesquisar o processo de implantação de uma inovação, Klein; Knight (2005) enumeraram algumas características organizacionais que conjuntamente melhoram a probabilidade de uma implantação ser bem sucedida: um clima forte e positivo para a implantação, o apoio da direção, a disponibilidade de recursos financeiros e uma organização orientada para aprendizagem. Estes autores descreveram também algumas dificuldades enfrentadas por muitas equipes e organizações:

- Muitas inovações requerem que os seus futuros usuários adquiram novos conhecimentos técnicos e habilidades; sua complexidade aumenta na medida em que a nova tecnologia é mais complicada do que a anterior;

- Devido à decisão de implantação de uma inovação ser geralmente tomada por pessoas em uma hierarquia superior à dos usuários-alvo, muitas vezes a opinião destes é pouco levada em consideração nas decisões;
- Inovações organizacionais exigem dos indivíduos mudar seus papéis, rotinas e normas;
- Implementações podem ser demoradas, caras e, pelo menos inicialmente, um empecilho para o desempenho atual da organização;
- Organizações são uma força estabilizadora: suas normas e rotinas forçam a manutenção do status quo.

Christensen; Overdorf (2000) explicam não ser surpresa haver dificuldade de implementar inovações em organizações maduras. Estas empregam pessoas altamente capazes e as fazem trabalhar por meio de processos estabelecidos em prol da padronização repetitiva, o que age para ganhos de receita em escala e crescente diminuição de custos. Relatam ainda que mesmo os executivos sendo capazes de identificar as pessoas certas para cada função, muitas vezes a capacidade organizacional de mudar é negligenciada. Além de avaliar os recursos, devem ser capazes de avaliar também os processos e os valores da organização. O dilema é que os processos, por sua própria natureza, foram elaborados para serem repetidos continuamente pelas pessoas ao executarem suas atividades. Foram elaborados para não serem mudados e, se o forem, para mudar dentro de um ambiente controlado.

Quanto aos valores, Christensen; Overdorf (2000) propõem, ao invés de uma conotação somente ética usualmente atribuída a valores corporativos, um entendimento mais amplo, no qual tais valores definem padrões do que se pode e do que não se pode fazer, pelos quais as pessoas estabelecem prioridades que as permitem julgar se um pedido é ou não atrativo, se um consumidor é mais ou menos importante, se a ideia para um novo produto é ou não atrativa. Como decisões de prioridades são tomadas por pessoas em todos os níveis, quanto maiores e mais complexas as organizações, tanto mais importante será treinar todos para tomarem suas decisões individuais, consistentes com a estratégia e o modelo de negócio da organização.

Processo de venda e compra aplicado à implantação de uma inovação: como influenciá-lo? A evolução mental das necessidades dos clientes

A visão de que vender é um processo ainda é nova para a maioria dos profissionais e empresas, segundo Romeu (2009). Ele indica existir um caminho seguro para aumento da eficiência do processo de vendas e que aquele que for inovador em compreender e adotá-lo primeiro adquirirá inúmeras vantagens competitivas em mercados que estão cada vez mais complexos e disputados.

Romeu (2009) defende que “basear as atividades de vendas de uma organização no comportamento mental de compra de seus clientes, em vez de na burocracia interna da empresa, faz com que os profissionais de vendas, a partir da compreensão dos princípios psicológicos presentes em todo o processo de compras (ver Tabela 1 e Figura 1), mantenham-se em sincronia com as preocupações e o modo de pensar de seus clientes potenciais”. Assim, conclui-se ser mais importante para uma organização ter uma clara compreensão do processo

de compra de seus clientes do que saber enumerar detalhadamente todas as características de seus produtos e serviços.

Essa mesma compreensão poderia ser aplicada ao processo de aprovação ou “venda” interna de uma inovação em uma organização, pois a melhor forma de vender algo é saber quais são as reais necessidades e em que estágio de entendimento de suas reais necessidades os clientes se encontram. Romeo (2009) define como “evolução mental das necessidades” este entendimento e a classifica em três estágios:

- **Ausência de necessidades**, na qual o ser humano está em equilíbrio e simplesmente não pensa sobre determinado assunto, problema, desejo ou oportunidade. Porém, dada interdependência de outros seres humanos e a influência da sociedade em geral, esse estágio não é permanente;
- **Necessidade latente**, na qual o ser humano conhece, porém não é incomodado constantemente pela necessidade. Por isso, não busca mais informações a respeito, uma vez que já analisou e julgou diversas soluções como de difícil implantação, de alto risco, muito caras ou com baixo retorno sobre o investimento. Da mesma forma como no estágio sem necessidades, alguém neste estágio estará em equilíbrio até que algum fator externo retorne esta necessidade à atividade mental;
- **Necessidade ativa**, cujo principal indício é a busca de informações em um processo de cognição e entendimento sobre suas causas ou motivos, para posterior busca por potenciais soluções. Diferentemente dos dois estágios anteriores, neste estágio existe a abertura para ouvir sugestões de produtos ou serviços que atendam à necessidade ativa;

Portanto, criar uma nova necessidade ou ativar uma necessidade latente na mente de quem toma a decisão a respeito da inovação, será chave para o sucesso de sua implantação.

Imagem da solução

De acordo com Romeo (2009), ser o primeiro a sugerir o que pode ser feito para equacionar essa necessidade recém-ativada é uma vantagem competitiva muito forte, pois esta sugestão poderá definir as regras pelas quais os seus concorrentes serão comparados. Essa comparação inicia-se pela construção de uma imagem da solução, que possuirá três componentes básicos: quem, o quê e quando. Somente após construir esta imagem é que as pessoas possuidoras de uma necessidade ativa conseguirão imaginar-se novamente em equilíbrio e estarão abertas a comprar um produto ou serviço. Walters (2010) confirma isso ao explicar que a imagem da solução tem papel preponderante na busca por informações, uma vez que é constantemente consultada durante o processo de tomada de decisão.

Por esta razão, caso o cliente potencial já possua uma imagem mental da solução, o ideal é primeiro desqualificar esta imagem para depois poder persuadi-lo do que se quer vender, formando uma nova imagem mental da solução.

Emoção, razão e experiência

Romeu (2009) enfatiza ainda que é preciso entender que as pessoas não compram simplesmente ideias, produtos ou serviços e sim as utilidades que eles entregam; compram

sensações que experimentam quando se imaginam de posse daquilo que se tem a ofertar. Vários exemplos relacionados a experimentar produtos ou serviços antes de adquiri-los poderiam ser citados, como fazer um “test-drive” de carros novos, visitar “apartamentos modelo” de lançamentos imobiliários, usar amostras grátis de produtos, entre outros. Isso demonstra o quanto experimentar é visto como agente influenciador na decisão de uma pessoa.

Segundo Santi (2011), a experiência, juntamente com a razão e a emoção, compõe as três engrenagens utilizadas pelo cérebro para uma tomada de decisão. Esse autor explica que o sistema de decisão racional, desenvolvido pelo córtex pré-frontal do cérebro, analisa tudo, dado a dado, para saber se a questão é ou não vantajosa. Portanto, uma vez que decisões de longo prazo estão relacionadas com a razão, um bom caminho para influenciar uma decisão é oferecer solução que transpareça aspectos de segurança, estabilidade e bem estar.

A emoção, dependente da amígdala e da ínsula, é mais imediata, praticamente um vigilante dentro da cabeça. Pode ser usada para influenciar uma pessoa criando uma nova necessidade ou ativando uma necessidade latente. E a experiência da pessoa, que no passado pode ter sido positiva ou negativa, só é revelada pelo convívio ou por um questionamento bem dirigido em um momento no qual haja abertura para tal, de preferência quando haja uma necessidade ativa para obtenção de melhores resultados. Proporcionar uma nova experimentação antes de apresentar a solução pode influenciar positivamente a formação da imagem da solução.

Deve-se fazer uso de questionamentos para poder identificar em cada caso qual das três engrenagens preponderará na tomada de decisão para saber a melhor forma de abordar o assunto para o exercício da influência, aumentando as chances de êxito na participação da montagem da imagem da solução para se tornar a referência comparativa às demais soluções.

Senso de urgência

Em qualquer uma delas, todavia, se faz necessário o estabelecimento do senso de urgência, que é a principal forma de causar o desequilíbrio em quem está num estágio de ausência de necessidades ou de necessidades latentes. Segundo Kotter (1997), a urgência é crucial para se obter a cooperação necessária, uma vez que em situações de alto nível de complacência, com pouco interesse em mudança, as transformações normalmente não são eficazes. De fato, complacência é uma tendência genuinamente humana de não aceitar aquilo que não queremos ouvir. Como é mais agradável uma vida sem problemas, quando os houver, as pessoas frequentemente tentarão se esquivar ou ignorá-los. Com baixo nível de urgência, não há esforço ou convencimento para que haja mudança ou para que se busque uma solução para um problema. Mesmo que uma necessidade seja ativada, sem urgência, ela se tornará no máximo uma necessidade latente.

Crítérios a serem satisfeitos em uma mudança

A recompensa ou benefício é um dos critérios enumerados por Sampaio (2014) como fundamentais de serem satisfeitos por todos os afetados em uma mudança, para que os níveis de resistência sejam reduzidos ao mínimo. Será um dos principais fatores de decisão, quando estiverem sendo comparadas diferentes soluções, em uma etapa de divergência. Quanto mais valor tiver a recompensa, mais esta influenciará o tomador de decisão. Sem recompensa ou sendo ela impossível de ser obtida, não haverá senso de urgência e é provável que o status quo seja mantido.

Entender e influenciar de forma eficaz o processo de tomada de decisão melhora as chances de sucesso da implantação de uma inovação

Outro critério fundamental, segundo Rabelo (2012), é o estabelecimento de interesse mútuo, que consiste em encontrar fórmulas de maximização de ganho para todos os envolvidos, para que sintam que compartilham dos mesmos objetivos da organização. Sampaio (2014) enumera ainda a compatibilidade da mudança com as experiências das pessoas que precisam inovar e sua complexidade – que deverá preferencialmente ser baixa para o fácil entendimento e utilização.

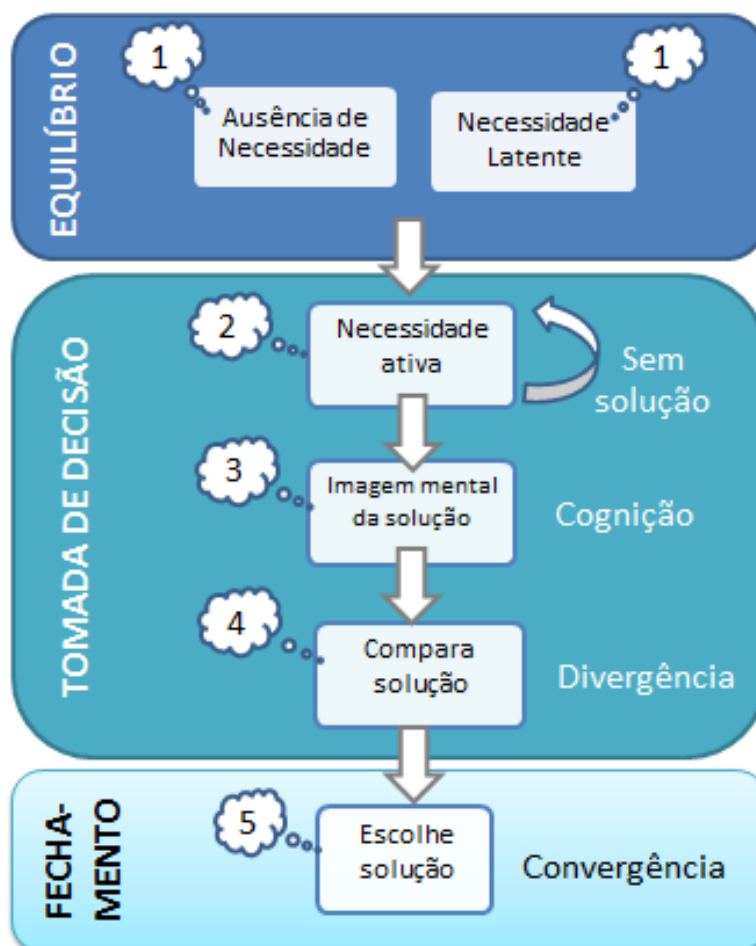


Figura 1: Esboço do processo de venda e compra (DIEPENBRUCK, 2014)

Considerações finais

O estudo da implantação de inovações revela que fatores de natureza humana possuem papel central em projetos corporativos. Entender todas as fases do processo de tomada de decisão é fundamental para o estabelecimento de uma forma eficiente do exercício da influência, no ambiente empresarial, para aumentar as chances de sucesso da “venda” e posterior implantação de uma inovação. Negligenciar isso pode fazer com que projetos de inovações tecnicamente bem resolvidos fiquem sujeitos ao fracasso.

Tabela 1: Formas de influenciar a tomada de decisão de um processo de venda e compra

Influência	Uso de	Objetivo	Ação
1	Emoção	Causar desequilíbrio	Gerar crise e criar urgência
2	Razão	Propor 1ª solução	Entender valores para propor primeira imagem mental que reestabeleça o equilíbrio, trazendo segurança, estabilidade e bem estar se longo prazo ou prazer se for curto prazo
3	Razão / Emoção	Minar solução existente diferente da sua	Descobrir critérios e pontos fracos imagem mental da solução atual para poder miná-la e introduzir a sua imagem mental da solução, segundo estes critérios
4	Experiência	Propor experimentar	Propor experimentar para ser o parâmetro comparativo e ajudar a tomada de decisão, pois compramos sensações
5	Razão	Reforçar solução	Reforçar as recompensas ao se escolher a tua solução, oferecendo descontos ou concessões, se necessário, para garantir a escolha

Leia mais

Como tomar decisões – Alexandre de Santi – Revista Superinteressante - Set 2011

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