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Resumo

O presente artigo tem por base a dissertação de mestrado da autora, “Categorias sociais e síndrome da fusão: impactos nas pessoas numa aliança estratégica” (Coimbra, 2010). Para esta publicação, o enfoque será sobre dois aspectos investigados, quais sejam, a percepção dos trabalhadores acerca da aliança estratégica que estavam vivenciando e a síndrome da fusão. Esta última tem sido descrita na literatura como o conjunto de reações aos impactos da fusão, que é um tipo de combinação organizacional, que se expressa em diversos níveis (pessoais, organizacionais e culturais). O presente estudo visa: i) avaliar como a aliança estratégica é percebida e neste sentido verificar seus impactos nos trabalhadores, considerando-se a variável síndrome da fusão e; ii) criar uma escala de medida válida para o construto “síndrome da fusão”. Trata-se de estudo empírico, quantitativo e com objetivos exploratórios. A amostra foi composta de 486 trabalhadores de uma empresa brasileira que entrou numa aliança estratégica com uma empresa multinacional no mesmo setor de atuação. Os principais resultados indicaram que a percepção dos trabalhadores acerca da combinação organizacional é majoritariamente positiva, porém o conjunto de dados não evidenciou a emergência do construto da síndrome da fusão.

Palavras-chave: Combinações organizacionais; aspectos humanos; aliança estratégica; síndrome da fusão

Abstract

This paper is based on the author’s master thesis “Social categories and merger syndrome: impacts on people in a strategic alliance” (Coimbra, 2010). For the present publication, the focus will be on two investigated aspects that are the perception of employees regarding the strategic alliance their company entered into, and the merger syndrome. The reactions to merger impact, a kind of organizational combination, have been described in literature as merger syndrome (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 2002, 1998) which presents consequences in individuals, groups and organizations. The present study aims i) to evaluate how the strategic alliance is perceived by the workers, in this way, to verify its impact on individuals, according to merger syndrome variable, and ii) creating a valid scale of measure for merger syndrome construct. The study is empirical and quantitative, with a mainly exploratory objective. The sample was composed of 486 employees from a Brazilian company, which entered into in a strategic alliance with a multinational of the same industry. Results revealed that the perception of the combination is mainly positive and the present set of data is not organized in a way to make the latent structure of merger syndrome emerge.

Keywords: Organizational combinations; human aspects; strategic alliance; merger syndrome.

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1 - THEORETICAL APPROACH

1.1 *Organizational Combinations: strategic alliances*

Organizational combinations can be understood as organizational arrangements between two or more companies which can vary depending on the level of integration, control, investment, impact, objectives and so on (Buono & Bowditch, 2003; Gaughan, 2007; Marks & Mirvis, 2002). Despite the tendency to be used interchangeably, there is a lot of differences between mergers and acquisitions (M&A) (Cartwright & Cooper, 1992). These differences include formal and legal aspects as well as human and psychological ones. The key factor according to Buono and Bowditch (2003) is the extent to which one firm is expected unilaterally to give up its independence to the other.

Strategic alliance (SA) is the process of cooperation between two or more entities that pursue their own strategic differentiated objectives. Frequently alliances are formed to produce a product or service, without intending to influence the totality of the operations of the organizations. In general, the governance of SA is bilateral and is determined by the agreement the alliance partners enter into, as well as by factors such as the lack of legal commitment of the alliance partners to make the alliance succeed. This does not mean that they will not have opportunities for strategic behavior. It is very common in SA partners to collaborate in one domain and to compete in others. Depending on the type of alliance entered into, a significant degree of trust may be needed between the partners.

Strategic alliances may be a way for two potential merger partners to assess how well they work together. Cultural differences between companies may become apparent when they are involved in a SA (Gaughan, 2007). If for any reason a com-

bination does reach expectations, the formal bonds of M&A are much more difficult to break if compared with the relatively provisional and flexible plans of an SA (Marks & Mirvis, 2002).

There are several possible frameworks in order to classify different types of organizational combinations. The key factor according to Buono and Bowditch (2003) is the extent to which one firm is expected unilaterally to give up its independence to the other. The authors propose an integrated tridimensional model for mergers and acquisitions, which vary quite distinctly along three dimensions: i) the dominant strategic purpose underlying the consolidation decision: if it is horizontal, vertical, product extension, market extension and unrelated; ii) the degree of friendless versus hostility involved in the combination, which is a key determinant of how employees and managers will react to the combination and iii) the desired level of integration between the firms following the amalgamation which counts on nine levels of integration: investment only, financial control, central services, limited decision making, retained decision making, many strategic decisions, all strategic decisions, many operating decisions, fully integrated firm.

In the present study we will consider combinations based on the above mentioned authors, although with some adaptations and specifications which follow here:

- a. The degree of friendless versus hostility involved in the combination (hostile-contested, laissez-faire and friendly-collaborative) will be considered from the perspective of top management;
- b. The level of integration between organizations will be considered in two aspects: legal considerations for top management, which means the legal definition of combination, and aspects that impact

directly in the psychological representation of the combination in people in general as presented in figure 1.

- c. The strategy underlying the combination decision will be considered as horizontal, vertical and unrelated or conglomerate.
- d. In horizontal combinations, two organizations of the same industry, who could be competitors, combine. In vertical ones the combinations occur between companies that have a buyer-seller relationship, and in conglomerate, the companies are neither competitors, nor in a buyer-seller relationship; they are from completely unrelated fields of business activity (Gaughan, 2007).
- e. Another topic, which is the objective underlying the combination, was added and that can be classified into product extension, market extension and technology extension.

Each one of the above mentioned factors have a significant impact on the ways in which organizational members will respond to and experience combination effort and influence the relative salience of human resource concerns (Buono & Bowditch, 2003, Cartwright & Cooper, 1992, Marks & Mirvis, 2002).

The level of integration between organizations has important impacts on people, especially due to its psychological representation more than to the formal aspects. Authors point out that that mergers, as they create greater and more prolonged uncertainty, were found to be more stressful, and have a longer-term adverse effect on mental health than acquisitions (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 2002).

Mergers pose the following underlying question: “when is a merger really a merger and not an acquisition?” (Cart-

wright & Cooper, 1990). Compared with acquisitions, the relationship between the merger partners is less clear-cut from the beginning and takes some time to appear. However, even if quite different from mergers, the same questions can be applied to a strategic alliance situation in which there is a certain and growing level of integration. Thus, we can say that in certain specific situations, a strategic alliance can be seen as a merger from a psychological perspective. Furthermore, other important points to consider are the stages through which organizational combinations pass. It is known that combinations tend to follow a fairly predictable sequence of events (Buono & Bowditch, 2003; Marks & Mirvis, 2002) and also that employee responses to merger tend to differ according to those stages (Cartwright & Cooper, 1990; Schweiger, Ivancevich & Power, 1987).

1.2 Human aspects of organizational combinations

The psychological merger literature has been widely and validly criticized for being fragmented and limited (Cartwright & Cooper, 1990; Moreira, 2007). Most studies have been of a descriptive qualitative nature, small in scale and narrow in focus. Wider scale and quantitative studies are less common and limited (Cartwright & Cooper, 1990). Most of them also focus on merger or acquisition process more than on strategic alliance, which is a growing process (Marks & Mirvis, 2002) and because of the apparent “simplicity” of this kind of combination it has often been underestimated.

A combination is a significant life event for an organization and its employees (Buono & Bowditch, 2003; Cartwright & Cooper, 1990, 1992; Marks & Mirvis, 2002; Schweiger, Ivancevich & Power, 1987). It is a major long term process of change and integration, amenable to analysis at the

individual, group and organizational level. As a result, psychology has a useful contribution to make and can promote a better understanding of the dynamics underlying these processes. However, the lack of recognition that M&A are essentially a human activity, and the complexity and their inherent methodological difficulties they present for human merger research are two major obstacles which psychological research has faced (Cart & Cooper, 1990).

It is important to emphasize that change in and of itself is often associated with anxiety, tension and resistance. But, during the transitions and transformations these stresses and tensions are greatly increased. It is pertinent to point out that the degree of stress arises more from the perceptions which employees have of the likely changes which may result than the effects of the changes themselves (Buono & Bowditch, 2003; Cartwright & Cooper, 1990, 1992; Marks & Mirvis, 2002; Schweiger, Ivancevich & Power, 1987). A negative evaluation of the situation will be probably experienced as stressful, the intensity being dependent on the degree and the duration of the uncertainty (Cartwright & Cooper, 1992). By saying this we do not mean that in an organizational combination there are not concrete and tangible reasons to experience more stress: that would be wrong. The quantity of work usually involved in such combinations is enormous. Moreover, since stress is cumulative in nature, individual pressures and tensions that might not ordinarily be stressful can take on new significance when compounded by other strains and ambiguities (Buono & Bowditch, 2003).

Schweiger, Ivancevich and Power (1987) defend that initial reactions are not good predictors of employee's attitudes in the long term, whereas the way in which the merger is presented, the suggested direction, the awareness of the future change, and the acceptance of this change (Cart-

wright & Cooper, 1992) are better predictors of major importance, in the long term. We can also find support for this assumption in the literature by which the ways in which integration decisions are made, communicated to employees, and implemented have the greatest impact on how organizational members will respond in the long term. Research indicated that realistic merger previews to the employees maintain much more stable levels of commitment, satisfaction, trust, and performance than do those which are less open in presenting information about the combination (Buono & Bowditch, 2003).

While general patterns of uncertainty and insecurity prevail in all mergers and acquisitions, each company and its people have unique responses to the stress and crisis of change. These strains on personnel well-being and organizational performance go unnoticed until they fester into costly symptoms such as high turnover, intergroup conflict, or poor financial results. In contrast, successful cases of mergers are marked by special efforts to proactively assess merger impact on individuals and groups (Marks, 1988). It is not an easy task to manage a combination process, since it is a complex event in which multiple factors intervene and little is known about the effectiveness of different approaches that might be used to manage the human side of the merger and acquisition process (Buono & Bowditch, 2003). The next section will discuss a phenomenon particular to organizational combinations and that are at the base of many points presented here: the merger syndrome.

1.2.1 Merger Syndrome

Merger syndrome is a primary cause for disappointing outcomes in collaborations (Dixon & Marks, 1999; Marks & Mirvis, 2002; Marks, 2005). The syndrome is originated by inevitably unstable conditions

(uncertainties, ambiguities and insecurities) that are produced from the first day following the announcement of an agreement, and that can endure several months, or years, depending on each specific case (Buono & Bowditch, 2003; Marks & Mirvis, 1998).

It can be defined as the set of human reactions (psychological and psychosomatic) considered “normal” and expected when one experiences a process of organizational combination (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 1998). It occurs not only during mergers but also in acquisitions and alliances (Dixon & Marks, 1999; Marks, 1988, 1999). Employees typically find little support from organizational leaders to help cope with the stress of a merger.

Merger syndrome is characterized by three types of reactions: personal, organizational and cultural (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Dixon & Marks, 1999; Marks & Mirvis, 2002). In our study, we will focus on the first two, personal and organizational reactions, since the cultural symptoms will lead us to analyze some aspects that are outside our interest for the moment, such as aspects related to status and power between the partners. Thus, below follows a synthetic description of personal and organizational reactions to organizational combinations.

- Personal symptoms
 - a. Heightened self-interest - people become preoccupied with what the combination means for themselves, their incomes, careers (Marks, 1988, 1999).
 - b. Worst scenarios - Objectively, most mergers provide a mixed bag of costs and benefits for employees. Studies show, however, that people focus on the negative (Marks, 1988, 1999; Marks & Mirvis, 2002)
- Organizational symptoms (Marks & Mirvis, 2002)
 - a. Crisis management – To cope with the many tasks arising from an organizational combination, managers adopt an attitude of crisis management, which only provides them with the illusion of control.
 - b. Increased centralization – Decision making tends to be centralized and there is a decrease in communication as well, which leaves employees in the deepest obscurity regarding communication, stimulating all kinds of rumors and insecurities.
- c. Rumors – After the official announcement of the combination the “machinery” of rumors gets started and people develop a story line about the implications, but it is often a mix of fact and fantasy. No one has real answers, and if they do, the answers are apt to change (Marks, 1988, 1999; Marks & Mirvis, 2002).
- d. Detraction from work performance - If left unchecked, the time and energy put into self-preservation detracts from work performance and ultimately, hinders financial performance in the post-merger organization (Marks, 1988, 1999; Marks & Mirvis, 2002).
- e. Psychosomatic reactions - Combination stress takes its toll on people’s psychological and physiological well-being. Rates of illness and absenteeism increase among workers affected by the combination. (e.g. high blood pressure, headache, symptoms of flu and colds, insomnia, increase in the consumption of alcohol and drugs) (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 2002; Schweiger, Ivancevich & Power, 1987).

- c. Decreased communication – Communication tends to be formal and unsatisfactory. When leaders give incomplete or inaccurate communication early on in a deal, they erode their employees' trust – and must rebuild their credibility while employees are engaged in a difficult transition (Dixon & Marks, 1999).
- d. Combat Mentality (war room) – Executives tend to act as they were in a war. As a result they are usually isolated and often prepare self-defeating gambits.
- e. Tension between persons and groups – Due to uncertainties, insecurities and striving for positions, no one wants to make mistakes. The situation is tense and people try to act as a member of a group avoiding having a divergent opinion. There is lower depth in analyses and increased *groupthinking* – the management team cut themselves off from relevant information and isolate themselves from dissent. They tend to accept assumptions without critical thinking and strive for consensus.

As exposed before, the present study will be concerned only with personal and organizational effects of the merger syndrome and its implications for individuals. However, it is also important to mention that in the present study some adaptations in each group of reactions/symptoms were conducted. The adaptations were made based on our interpretation of other literature (Cartwright & Cooper, 1992; 1990; Schweiger, Ivancevich & Power, 1987, Buono & Bowditch, 2003) addressing human reactions to the merger process (merger stress, psychological impacts, areas of employees concerns) and its impact on employees and also based on our field experience. In making those adaptations we

expected to cover a wider range of symptoms and reactions that were supposed to be compatible with the merger syndrome concept and our field experience.

Thus, in our study, the personal and organizational symptoms are:

- Personal reactions: Preoccupation with surviving; Worst scenarios; Unproductive behaviors; Psychosomatic reactions; Family repercussions.
- Organizational reactions; Crisis management; Centralization; Combat mentality; Loss of talent.

In personal reactions we maintained psychosomatic reactions and worst scenarios from Marks and Mirvis (2002). In addition, "Heightened self-interest" and "Detraction from work performance" we adapted to "Preoccupation with surviving" (Schweiger, Ivancevich & Power, 1987) and "Unproductive behaviors" (Cartwright & Cooper, 1992), and finally, we added another factor "Family repercussions" (Schweiger, Ivancevich & Power, 1987).

Regarding organizational reactions, we chose to maintain "Crisis management", "Centralization" and "Combat mentality" all from Marks and Mirvis (2002), and we added "Loss of talent" (Schweiger, Ivancevich & Power, 1987).

2 - EMPIRICAL STUDY

2. 1. Objectives

The two main objectives of the present research are:

- A. To evaluate how strategic alliance is perceived by workers as positive or negative and, in this way, to verify its impact on individuals according to the social category and merger syndrome variables;

- B. To develop a merger syndrome questionnaire and thus create a valid scale of measure for such a construct.

2. 2. Research Questions

- i. How do those variables (perception of the alliance, merger syndrome and social category) function in strategic alliance combinations? Do they diverge from M&A situations?
- ii. Is there any relation between them? If so, how and in what sense are they related?
- iii. To what degree can we speak about the existence of the *merger syndrome*, when we are in the presence of a strategic alliance between companies?
- iv. What is the role of the social categories concerning the strategic alliance?
- v. To what extent can we admit the positive or negative perception of the strategic alliance as a moderating variable between the identification process and merger syndrome?

exploratory studies are so slightly definitive is due their representativeness/generalizability (Babbie, 2000).

In this particular case, the option for that research design was because not much is known about the behaviour of the above mentioned variable in the context of a strategic alliance, because most studies were conducted in an M&A context and furthermore, the study was carried out in another country, which means another socio-cultural environment. Besides this, an exploratory design allows more flexibility in analyzing data and results.

This study has also correlational objectives in the sense that it aimed to explore the relationships between the variables. The intention was not to infer causes but to examine relationships and interrelationships between phenomena (Brewerton & Millward, 2001). Finally, considering the nature of our objectives and research questions, as well as the procedures and methods employed to collect and analyze the data, the study can be also characterized as quantitative (Thomas, 2003). It had also a transversal nature, in the sense that it sought to characterize some specific aspect of a certain population in a certain time and space (Babbie, 2000).

3 - METHODOLOGY

3.1 Research design

The present study has an empirical nature, employing mainly an exploratory design. The main disadvantage of exploratory studies are that rarely they give satisfactory answers to the investigation questions, although they can suggest them and clarify the methods that should lead to definitive answers. Sometimes an exploratory study really answers investigation questions and sometimes it just indicates the path to the answers. Another reason that

3.2 Variables

3.2.1 Merger syndrome

This is the set of human reactions (psychological and psychosomatic) considered “normal” and expected when one experiences a process of organizational combination (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 2002, 1998). The syndrome is originated by inevitably unstable conditions (uncertainties, ambiguities and insecurities) that are produced from the first day following

the announcement of an agreement and that can endure several months, or years, depending on each specific case. Merger syndrome has personal, organizational and cultural consequences. In the present study we will consider only the personal and organizational effects and their implications for individuals.

Among all the literature we reviewed, only one study used a quantitative approach and employed a questionnaire to assess merger syndrome. The others were all qualitative and of a retrospective nature. In the present study, however, we chose not to use the scale developed by Haley (2001) because we considered it too limited in terms of the chosen reactions/symptoms of merger syndrome and it was too specific to a moment of the acquisition process, namely four months after the acquisition announcement and two weeks prior to a final shareholder vote to accept the offer.

Thus, in the present study merger syndrome will be assessed by a questionnaire we developed based on the existing literature (Buono & Bowditch, 2003; Cartwright & Cooper, 1992; Marks & Mirvis, 2002; Schweiger, Ivancevich & Power, 1987) and on field experience. The option for creating a scale also had to do with our objectives and the theoretical frame chosen for merger syndrome and the specific situation, a strategic alliance at a specific moment and context. Thus, in this study merger syndrome is treated as a latent variable, based on a set of previously presented and known components.

3.2.2 Perception of the strategic alliance

This variable deals with the employee's opinion about the alliance. Literature indicates that in mergers and acquisitions the more this perception is positive, the less they tend to suffer from the effects of the

stress of combinations. However, when considering strategic alliance situations, considerations about how employees will perceive it are unknown. This variable will be assessed by a simple and direct question.

3.3 Sample

The study was carried out with a sample of convenience composed of 486 employees, distributed among 11 organizational units and 22 working areas of a Brazilian company of the agro-industrial and food sectors.

3.3.1 Characterization of the company

It is a nationwide Brazilian company (Company A) in the food sector, more specifically in the area of food derived from the wheat chain. It had (at the time of the study) approximately 2500 direct employees and over its 70 years of existence, the company has gone through many organizational changes. In March 2004, the company celebrated an operational agreement with "B" (Company B), one of the world's leading companies in the food and agribusiness sectors, and, together, they became the largest processor of wheat in Brazil and one of the largest private buyers of wheat in the world. This organizational arrangement was named and presented as a "strategic alliance". Since then, the partners of the alliance have searched for increasing opportunities to improve their synergies and to consolidate the deal.

If we try to represent schematically the strategic alliance held by our target-company (A), it could be similar to the figure 2.

The names inside "Company A" refer to the working areas that took part in our sample. The TB, MB and DB areas are

those that most represent the success of the alliance. Despite the fact that the majority of people that work in those areas held a formal labor contract with Company A, the governance of those areas is carried out by the alliance, which means a management structure developed to guarantee the successful functioning of the alliance and its interests. Thus, TB, MB and DB are more independent from Company A and from Company B, including having their own brands and cultures. TB, MB and DB act in a different business area and are quite different in terms of headcount and creation.

For the group of areas that begins with "Presidency", subjects and personnel contact related to the alliance are more present in their day-to-day activities, if compared with the group that starts with "Legal".

Some workers of all the areas mentioned above, in company A, come from and held a labor contract with a third party contractor.

In our study the working areas were regrouped according to their belonging to certain organizational structures named direction sectors. This information and ways of regrouping the working areas will be considered as socio-organizational data and will be analysed relatively to each variable.

3.4 Technique of data collection

Data was collected through a questionnaire directed to the participants. All variables, including the socio-demographic and socio-organizational data of participants were integrated into one single questionnaire which was composed of three parts: 1) the perception question about the alliance; 2) a total 54 items investigating individual and organizational symptoms of

merger syndrome that was created based on the existing literature and on the field experience and that must be validated; and 3) socio-demographics and socio-organizational data.

3.4.1 Measures/instruments to assess variables of study

Part 01 – Perception of the strategic alliance

Concerning the perception about the strategic alliance, it was assessed by the following direct question: "Mark with an X the number which best expresses your opinion about how you perceive the strategic alliance of your company, in general". The possible answers range from 1 to 7, on a seven point Likert scale, as follows: 1-*totally negative*, 2-*negative*, 3-*partially negative*, 4-*neutral*, 5-*partially positive*, 6-*positive* and 7-*totally positive*.

Part 02 – The Merger syndrome

Concerning merger syndrome, the literature pointed out three groups of reactions (components), of which we are interested in two, and the questionnaire was structured as follows:

- 2 dimensions (individual and organizational reactions);
- ✓ 5 factors for individual reactions (Preoccupation with surviving; Worst scenarios; Unproductive behaviours; Psychosomatic reactions; and Repercussions in family).
- ✓ 4 factors for organizational reactions (Crisis in management; Centralization; Combat mentality and Loss of talents).
- ✓ Each factor had 6 items.

- A seven point Likert scale was used ranging from 1- totally disagree to 7 – totally agree.

For the content validity, after the questionnaire was created, it was submitted to a group of experts and some changes were made in terms of content, language and layout. Secondly a pilot was conducted with 18 participants from several areas of the same sample in which it was to be applied and only a few changes in the socio-organizational data were made. It is important to mention that socio-demographic and socio-organizational data (Part 3 of the questionnaire) were selected based on previous works that identify them as important aspects to consider in organizational combinations, as well as taking into account the literature and the goals of our study. The psychometric characteristics of the questionnaire will be discussed in the results.

The following stage concerning content validity was the application of a pilot with 18 subjects, representatives of the sample in which the study was going to take place. The pilot involved applying the questionnaire, with the aim of checking suitability and comprehension of the items and the answer scale adopted, as well as the overall structure of the questionnaire for the population of the study. The respondents considered the questionnaire as accessible.

3.4.2 Procedures

Questionnaires were applied at work, by the human resources person of the company. Employees were invited to participate in the study and be present at a specific place and time in order to receive instructions, answer and return the questionnaire.

Before, during and after all stages, the researcher and the person responsible

for the study in the field kept in contact in order to avoid possible mistakes or doubts and to guarantee the successful development of the work field and respect for the conditions of application. A pilot was conducted with 18 employees of several areas. Valid questionnaires were filled in, in organizational units, in appropriate conditions. Our sample is made up of a total of 486 subjects.

3.5 Statistical techniques to analyze collected data

The Statistical Package for the Social Sciences (SPSS) version 14.0 was used to run descriptive and inferential statistics. Considering the variables and the goals of the present study, a series of different statistical techniques were used. Some statistical techniques employed had the objective of exploring the relationships between the variables (Chi-square; Pearson and Spearman correlation; and Factor analysis) while others aimed to identify if there were significant differences between the groups (Chi-square; Mann-Whitney; and Kruskal Wallis). More information about the data analysis was reported with the presentation of the following results.

4 - RESULTS

Results will be exposed for each variable (perception of the alliance and merger syndrome) considering firstly its interaction with the socio demographics and socio-organizational data and secondly exploring the relationships between the above-mentioned variables.

4.1 Perception of the Strategic Alliance

As explained previously, the perception of the strategic alliance was assessed on a seven point Likert scale. In figure 3,

in order to better visualize the data, the opinion frequencies “partially positive” (24.5%), “positive” (38.9%) and “totally positive” (13.0%) were grouped in a new “Positive” category and the frequencies for “totally negative” (1.2%), “negative” (2.3%) and “partially negative” (3.5%) were grouped in “Negative”. The frequency of the group “Neutral” (11.9%) for perception was maintained. Thus, participants perceive the strategic alliance mainly in a positive way.

Considering the relation with socio-demographics and socio-organizational data and as our variable does not match the normality assumption, the following analyses will be conducted using nonparametric statistics. Some extreme outliers were identified; however, as their exclusion does not change the main descriptive statistics greatly ($M= 5.42$; $SD=1.13$, 5% Trimmed Mean= 5.49), we opted to maintain them.

Aiming to identify possible differences inside the groups, statistically significant differences in the perception of the strategic alliance were found in organizational units, age and direction sectors.

In terms of organizational units, FRT had the highest mean of perception of the strategic alliance. This is interesting because this unit is composed mainly of the TB team, which can mean that people from structures of the alliance (TB), at least in this organizational unit, have a more positive perception of the strategic alliance. Other two organizational units, CBD ($M=4.97$, $SD=1.53$) and SLV ($M=4.97$, $SD=1.67$), both have the lowest mean of the sample concerning the perception of the strategic alliance, considered it as “partially positive”.

Regarding age, regrouping the sample in two groups, those up to 40 years-old and those with more than 40, statically significant differences were found among those groups for $p<0.05$. Up to 40 years-

old ($mean\ rank = 222.40$) and More than 40 years-old ($mean\ rank = 262.88$) ($U=13949$, $p = .006$). In other words, even if those groups perceive in a general way the strategic alliance as “partially positive”, the group up to the age of 40 tends to perceive it as less positive than those over this age.

In terms of direction sectors, statistical analysis (Kruskal-Whallis, Mann Whitney) indicated that the structures of the alliance have the highest ranking for perception and that it is significantly different from Operations, even if they are both considered it partially positive.

4.2 Merger Syndrome

In order to reach one of our objectives - to develop an instrument to assess merger syndrome - after checking the content validity (c.f. “measures”), the second step was to check the construct validity of the instrument, which was done through factorial analysis. Taking into account that the scale used in the present study had just been developed, and thus there were no other studies that had employed it before, an exploratory factor analysis was conducted. The main objective of the exploratory factor analysis in this study was to explore the relationships between the items in order to identify a coherent structure capable of bringing to light the latent construct of merger syndrome.

Before starting the factorial analysis itself, we considered the analysis of missing cases and some descriptive statistics (mean, standard deviation and frequencies of answers by item). Afterwards, we analyzed the variability of answers in each item on the questionnaire. We found that in 53 items the highest concentration of answers on one single option was less than 43%. Only the item Q44 presented 59% of concentration on option 1 “Totally disagree”. However, when we checked the content of

item Q44 “I have been missing work more frequently”, we could easily understand the motives for the answers being so concentrated. Thus, we conclude that there was a suitable variability of answers by respondents relating to the items in the instrument, and so the suggested items present an adequate discriminative capacity. After verifying the basic descriptive statistics, we observed that a condition to conduct a factorial analysis was present: size of the sample.

A study of linear correlations between the variables is very important in factorial analysis. Effectively, when there are correlations between every pair of variables, this implies a correlation matrix different from the identity matrix. When this happens, we can say that the data present relationships of dependence, which allows us to describe them and reduce them into fewer numbers of variables, which in turn facilitates its comprehension (Pestana & Gageiro, 2008). Correlations between items can be considered for factor analyses up to 0.30. Proceeding to the analyses of correlations (Pearson's r) between the 54 variables, we verified that 8 of them presented very low correlations and thus, we decide to remove them (items: 20, 31, 32, 39, 41, 45, 47, 50).

The following step was then to identify the extreme outliers since they can have great influence on factorial structures. Hence, we identified and excluded 61 outliers. Without them, the new descriptive statistics ranged from $M=1.75$ (Q44) to $M=4.44$ (Q28), and $SD=1.25$ to $SD= 1.92$. After these procedures, our scale had 46 items, and our sample was reduced to 425 subjects, which give us approximately 9.2 subjects per item.

Besides the study of correlations, and also in order to check the viability of conducting a factorial analysis, we analyzed the KMO (Kaiser-Meyer-Olkin), the

Bartlett sphericity test and the anti-image matrix. Thus, using the method of principal components we ran an exploratory factorial analysis. The $KMO=.875$ attested that our sample was very suitable and Bartlett's test revealed that the correlation variables matrix is different from the identity matrix, indicating intercorrelations among the variables.

These indicators allowed us to pursue the factor analysis and suggest a good fit of the data. On the other hand, observing the anti-image matrix we identified that the main diagonal value range between .705 and .940 and the numbers outside the diagonal are mostly small, except for items Q7 and Q25 whose absolute values outside the diagonal are .590. However, as these items have high numbers on the main diagonal (.762 and .812), as well as commonalities of .78 and .75 respectively we chose to not exclude them from the base.

After the study of the initial solution, which proved to be unsatisfactory both in statistical terms and in terms of interpretability, we forced several factor extractions subject to varimax orthogonal rotation that maximizes the sum of load variances demanded by the factorial matrix (Hair et al., 2005). We were attentive to the balance of the total variance explained by the number of factors to be extracted (also based on the Scatter Plot); analysis of internal consistency of the components and of the scale (Cronbach α); and the content reliability.

As the emergent solutions were presenting poor results, we were pushed to test other factorial structures with fewer items. Hence the variables were eliminated step by step, that is, after the elimination of each variable we repeated the procedure of factor analysis. As pointed out previously, the option to retain or maintain a specific structure was based on the analysis of various criteria, including the Kaiser's criterion, Cattell's scree test, the percentage of total variance explained, the commonalities,

the saturation of the items and also the internal consistency of the suggested solutions. In addition to these statistical criteria, we also considered aspects of a theoretical and conceptual nature, in particular the adequacy of the factorial structure of the underlying theoretical perspective and content of each item and its importance in measuring the theoretical construct in question. After considering all the above-mentioned points, the best solution was a 4 factor extraction, with a total variance explained of 56,9% and a total Cronbach $\alpha = 0.905$ (see table 1).

The first factor comprises seven items, explains (after *varimax* rotation) 18% of the total variance and has an intrinsic value of 3.602. The second factor consists of four items, having an eigenvalue of 3.347 and explaining 16.73% of the variability. The third factor consists of four items, has an eigenvalue of 2.38 and explains 11.91% of the variability. Finally the 4th factor has an eigenvalue of 2.04 and explains 10.24% of the variability.

As we can observe, the factors do not express the same components we predicted when constructing the items. Instead, they represent more a mix of the components of merger syndrome. Thus, the first factor was named "uncertainty and crisis management", the second was "psychosomatic reactions and disengagement", the third is centralization and lack of transparent information" and the fourth is "feeling of imminent loss". So although those factors can be seen as present in merger syndrome, they do not correspond to the components we were hoping to measure with such instrument.

Regarding the saturation of the items (see table 1), despite the fact that they all present saturation above 0.50, items 14 and 38 present some fragility because they present close saturations in two factors. Regarding commonalities, three items (Q5-

47%, Q38-46% and Q46-49%) are below the 50% indicated in the literature. However, as discussed earlier, the maintenance of such items was justified by the analysis of the anti-image matrix.

The Internal consistency was assessed by calculating Cronbach's alpha and by the analysis of correlations between each item and the dimension (factor) they belong to. Analyzing the table below (Table 2), we can observe that the factors have retained good levels of internal consistency. However if we analyze each item specifically we will find some lower correlations.

All these analyses lead us to conclude that in the strategic alliance we are studying, there is no factorial structure for merger syndrome. In other words, the present set of data is not organized in such a way as to make the latent structure of merger syndrome emerge. What we have found is that those items are organized in a way that does not correspond theoretically to the merger syndrome construct.

4.4 Relationships among variables

As part of our aim, we tried to find possible relationships between our variables of study, namely the perception of the strategic alliance and merger syndrome. Concerning this last variable, as explained previously, no factorial structure was found. However, assuming a more exploratory perspective (even if we did not find a clear factorial structure for the merger syndrome construct) we tried to investigate possible relationships between the items of our questionnaire and the other variables.

Considering some items of our questionnaire and trying to explore possible relations with the perception of the strategic alliance, we found a statistically significant negative relationship between the perception of the strategic alliance and several

items, even if it was mostly small. As an example, there is item 26 "I feel a low level of energy at work" with [$r = -.025$ ($N=382$; $p=.000$)].

5 - DISCUSSION AND CONCLUSION

Organizational combinations, such as strategic alliances, represent great change for people and organizations and cause a set of reactions in both. The literature states that the degree of stress arises more from the perceptions which employees have of the likely changes which may result, rather than the effects of the changes themselves (Buono & Bowditch, 2003; Cartwright & Cooper, 1990, 1992; Marks & Mirvis, 2002; Schweiger, Ivancevich & Power, 1987). A negative perception about the organizational combination will probably be experienced as stressful, the intensity of this last dependant being of the degree of uncertainty and the duration of this uncertainty (Buono & Bowditch, 2003; Cartwright & Cooper, 1992). Differently from a merger or acquisition, a strategic alliance has no intent to influence the totality of the operations of the organizations (Marks & Mirvis, 2002) and the governance is usually bilateral, which requires more detailed roles and commitments between the parties (Gaughan, 2007). From a psychological perspective, a strategic alliance also encompasses a lot of uncertainties and ambiguities: partners may collaborate in certain domains and compete in others and people may doubt if the alliance is really an alliance or if it will turn into a merger or acquisition.

In our study, concerning the perception of the strategic alliance, the majority of people perceive it in a mainly positive way. However, even if in general the alliance is perceived as positive, some significant differences were found mainly in the group that perceived it as partially positive (24.5% of the sample). Significant differences were

found according to organizational units, age and direction sector. In his studies on a merger context, Moreira (2007) found significant differences in the perception of the merger according to the company with which labor contract was held, whether a managerial position was held or not and last promotion. No effect was found for age.

Results suggest that the working areas most affected by the alliance have higher scores for perception. Considering the literature on mergers and acquisitions, we can feel tempted to state that results for strategic alliances may differ when compared with the former situation. However, we must be careful since our results may be due to the actual stage or phase of the alliance which may be considered well consolidated by its participants, who in turn may feel well adapted to the context, with no more feelings of uncertainty or stress.

Merger syndrome is presented in the literature of organizational combinations that deploy a more humanistic lens in trying to understand such combinations, as a primary cause for disappointing outcomes in collaborations (Dixon & Marks, 1999; Marks & Mirvis, 2002; Marks, 2005). It encompasses a set of reactions that can endure for several months or even years (Buono & Bowditch, 2003; Marks & Mirvis, 1998, 2002) and this can occur not only during mergers and acquisitions, but also in strategic alliances (Dixon & Marks, 1999; Marks, 1988, 1999).

In our study, we developed a measuring scale to assess the merger syndrome variable, focusing on personal and organizational symptoms. Our results, however, do not point to the existence of merger syndrome in strategic alliances, as predicted in the literature. For instance, we found no interpretable factorial structure, which means that in this strategic alliance merger syndrome, as a latent construct, is not perceived by respondents.

On one hand this could be due to the time period in which we assessed this variable, since it had been approximately five years since the beginning of the alliance. It is possible that, as we saw for the perception, people considered it well consolidated and thus they may have felt well adapted, with no more feelings of uncertainty or stress, or merger syndrome itself. Another possibility to consider is related to the nature of the concept of merger syndrome. According to Law, Wong and Mobley (1998) multidimensional constructs can be defined according to a "latent" or to an "aggregate" model. In the former model, the multiple dimensions are simply different manifestations of the construct. The dimensions share common variance and it is in this common variance that the latent construct is to be found. Consequently, the multidimensional construct can be represented as the common factor that underlies its dimensions. In the aggregate model, the multidimensional construct is a composite formed by the sum of its dimensions. The dimensions are only part of the definition of the dimensional construct. If we consider merger syndrome as a multidimensional construct-type aggregate model, it will be a possible explanation for our results. Hence, merger syndrome would exist only as the sum aggregate of its dimensions, namely organizational, personnel and cultural symptoms.

However, assuming a more exploratory perspective (even if we did not find a clear factorial structure for the merger syndrome construct) we tried to investigate the possible relationship between the items of our questionnaire and the other variables. We found significant negative relationships between the perception of the strategic alliance and some items. These results seem congruent with the literature that states that the more positive the perception of the organizational combination, the lower are the symptoms of this same combination.

Taking into account the above-mentioned exploratory perspective and its evidence, it may be possible to suggest it may not be completely definitive that in strategic alliances we do not have merger syndrome. Perhaps, items written differently would lead to different outputs.

6 - CONTRIBUTION, LIMITATIONS AND DIRECTIONS FOR FUTURE INVESTIGATION

While most studies focus on the merger or acquisition process, the present study aims to investigate the human aspects underlying strategic alliances. Those organizational combinations, despite increasing due to several advantages and facilities, are frequently underestimated, perhaps due to their apparent "simplicity". The present study aims to be a contribution to the field of work and organizational Psychology. It helps a better understanding how this kind of organizational combinations work in terms of our variables of study: perception of the alliance and merger syndrome and makes some possible reflections possible when compared with other types of operations such as mergers and acquisitions.

In terms of perception, on one hand it seems different from M&A since in our study we found that the areas most affected by the alliance tend to present higher scores for perceptions. On the other hand, it presents similar results to the M&A process since negative relationships between perception and some items of our questionnaire were found.

Concerning merger syndrome, we adopted a quantitative perspective in data collection and analyses, choosing to develop a questionnaire focused on personnel and organizational symptoms for that aim. Although the literature based on qualitative and retrospective studies states that,

even in strategic alliance, merger syndrome is present, we did not find a factorial structure that could represent merger syndrome as a latent variable. Possible reasons were already exposed before, however we may emphasize aspects like timing, the construct itself, or maybe the methodology employed. Quantitative designs have the advantage of facilitating a larger sample size to ensure an adequate statistical treatment. Moreover, it opens the possibility for statistical analysis and this may create some ambiguity as well. Any quantitative and explained measurement will be more superficial than the corresponding qualitative description (Babbie, 2000). In this sense we encourage other studies to try and develop instruments to assess merger syndrome but it may be more successful to employ a combined quantitative and qualitative approach.

If on one hand the present study allows us to make possible reflections on relations to M&A processes, we cannot state that they are similar to strategic alliances considering a more humanistic and psychological perspective. Additionally, having so few recent studies makes it difficult to make comparisons. In this regard, another limitation is the wide range of possible organizational combinations, and the particularities and phases (stages) through which those combinations go, makes it more difficult to conduct generalizations. On the other hand, working with a sample of convenience presents a series of advantages but it also represents a limitation in terms of generalization of our study, since it is restricted to a specific combination, at a specific point in time, in a specific country and reality.

Other limitations are that the application was made by the human resource of the company, although we tried to assure confidentiality; and it was conducted in only one partner of the alliance. However, if these points represent limitations, they

also represent opportunities for future investigations, in the sense of re-thinking the methodology and procedures employed to collect and analyze the data.

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Figure 1. Level of integration (positive direction) of the features that impact on people psychological representation of the combination.

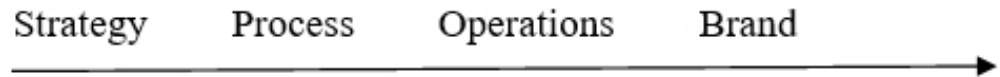


Figure 2. Diagram representing the strategic alliance between company A and B

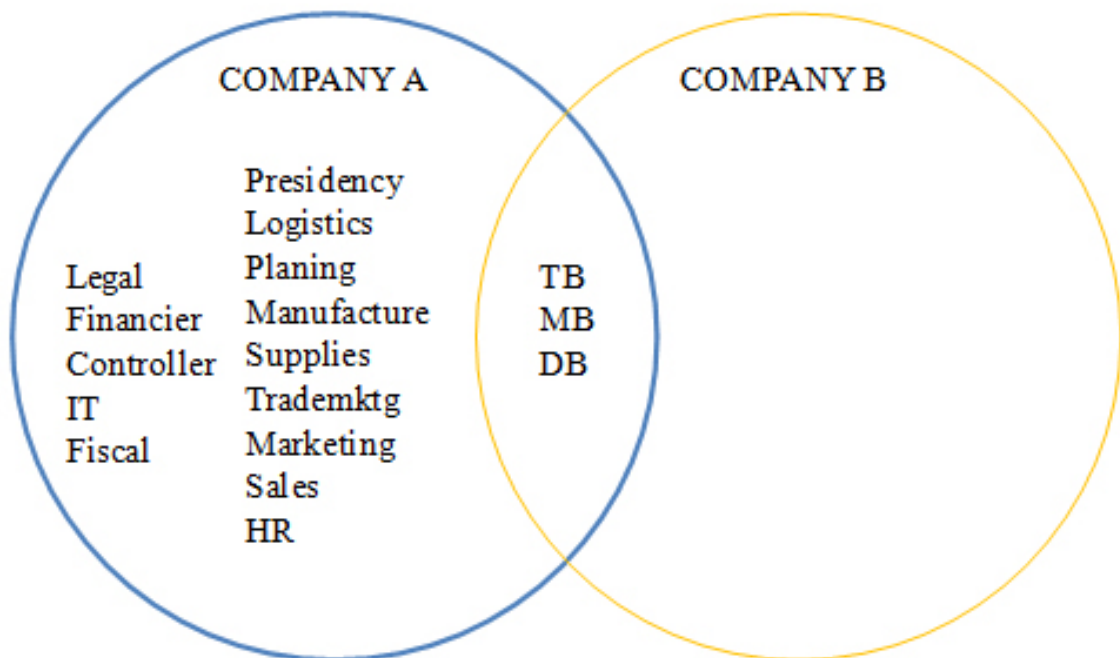
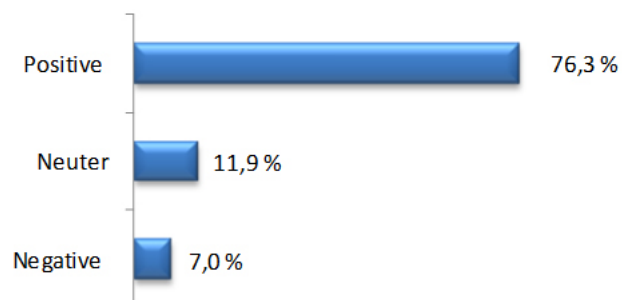


Figure 3. Perception of the sample of the strategic alliance (N=486)



Item	Factor 1	Factor 2	Factor 3	Factor 4	λ^2
Q21 The information we received causes to us more doubts and preoccupation, most of the time	0,68				.575
Q46 Pressure at work is increasing because managers don't agree about priorities.	0,65				.491
Q37 The successive changes suggest that one does not know very much where to go	0,62				.510
Q17 The only thing we are sure here is that nothing is sure, until this thing happens.	0,58		0,39		.519
Q27 We never know for sure when we can/should work things out for ourselves, without waiting for an opinion of a superior	0,58			0,37	.519
Q49 Several times we doubt if information concerning the company is true or not	0,57		0,45		.553
Q13 The information we receive from our managers are not very reliable.	0,56	0,30			.500
Q33 I feel less productive than before.		0,80			.662
Q18 I feel depressed when I think about going to work.		0,73			.639
Q2 I feel that my commitment with the company has diminished.		0,72			.599
Q35 I feel I am becoming sick.		0,71			.527
Q26 I feel a low level of energy at work.	0,37	0,63			.575
Q38 With all the changes undertaken, I think I have no more control of my working conditions in this company.	0,41	0,50			.461
Q3 We have little information about the changes that occur in the company.			0,79		.651
Q4 I think any time I will have a nasty surprise concerning the company.			0,61	0,36	.577
Q5 We all feel that there is an "us" and "them" within the company.			0,61		.470
Q14 We have the feeling that everything happens "suddenly".	0,47		0,52		.506
Q9 My family think that I can lose my job any moment.			0,32	0,72	.684
Q29 I think that at any time I can lose something related to work.	0,35			0,70	.724
Q22 I feel that the frequent changes threaten my career in this company.	0,37			0,70	.638
	Cronbach's Alpha	.820	.836	.703	.743
	Variance Explained (%)	18%	16,73%	11,92%	10,24%

Table 2

Factorial solution with 4 factors for merger syndrome: Cronbach's Alpha and Item/Factor correlations

Factor	N of Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Uncertainty & Crisis management	7	.620	.786	.820
		.540	.799	
		.541	.799	
		.572	.794	
		.505	.805	
		.577	.793	
		.579	.793	
Psychosomatic reactions & Detachment/disengagement	6	.659	.800	.836
		.721	.793	
		.588	.814	
		.563	.819	
		.631	.806	
		.534	.827	
Centralization and lack of transparent information	4	.501	.632	.703
		.522	.620	
		.486	.641	
		.446	.666	
Feeling of imminent loss (job insecurity)	3	.538	.698	.743
		.639	.576	
		.535	.696	

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